

Professional Practice Reports

Volume 2

By

Keiron Pollitt

Postgraduate Professional Training Programme in Educational

Psychology: University of Birmingham

Contents

Volume 2

Introduction to Volume 2	3
Professional Practice Report 1	16
Professional Practice Report 2	74
Professional Practice Report 3	127
Professional Practice Report 4	178
Professional Practice Report 5	227

Introduction to Volume 2

The Trainee Educational Psychologist's role (TEP) and researcher identity

Since its inception educational psychology (EP) has undergone continuous change in search of what might be termed 'a definitive professional identity' (Love, 2009). With educational psychology services (EPS) now positioned under the broader umbrella of integrated children's services (DfES, 2005), contemporary developments of this 'identity focus' have typically manifest in the form of, 'what is the distinctive role of EPs' (Cameron, 2006), and / or 'what is it that EPs do that no one else can' (Lucas, 1989; Moore, 2005). Service delivery within a context of professional accountability has added further momentum to the profession's 'self reflection' in that regard.

The development of the new three year Doctoral training programme for Trainee Educational Psychologists (TEPs) has also been influenced by, and contributed to, the professions view that EPs should attempt to demonstrate a unique contribution as children's service providers. In this respect, the Birmingham course aims to equip TEPs via concentrated focus on the development of research skills in order that psychology can be applied within schools and across community settings to meet the needs of children and young people. Context appropriate evidence-based practice is the cornerstone of the Birmingham course.

A necessity in completing the Doctoral training programme at the University of Birmingham is that TEPs complete five professional practice reports (PPRs) whilst employed within a Local Authority Educational Psychology Service (EPS). In addition to meeting thesis requirements, these PPRs can be seen as serving two further functions, which relate first and foremost to meeting the needs of children and their families, and secondly to the professional development of the TEP.

The consistent application of research and evaluation skills and psychological principles and methods evident across the five PPRs serves to demonstrate the valuable and unique contribution that educational psychologists can make as children's service providers. The general orientation towards evidence-based practice can also be seen as indicative of, not only the contemporary developments within the profession and the aforementioned training programme, but also my own developing value-system as a research-orientated practitioner.

Volume 2 of this thesis contains five PPRs all of which were carried out within the context of Local Authority educational settings, and formed part of general service delivery on behalf of the Birmingham Educational Psychology Service. This short introductory section to Volume 2 provides a brief overview of the nature of the work undertaken and describes some of the factors, which in addition to Local Authority requirements, contributed toward the selection of these particular areas of research for inclusion in this thesis. Self organised learning () is an integral component of the Birmingham course.

The work undertaken: overview of the five professional practice reports

For explanatory purposes the five discrete pieces of research can be categorised into two types, capacity building work, and individual casework. PPRs 1, 4 and 5 can be seen as capacity building projects and broadly relate to improving motivation, literacy, and behaviour respectively. These research projects align to what the Birmingham EPS currently refers to as its 'transformation agenda'. The notion here is that EPs / TEPs attempt to develop and orientate work towards whole school improvement (e.g. Fullan, 2006). A preventative focus towards improving outcomes for young people in Birmingham is the central plank of the Local Authority's Children and Young People's Plan 'Brighter Futures', developed through city-wide consultation with a range Birmingham's local children's service providers.

PPR s 2 and 3 involve individual casework. PPR2 relates to work carried out with a family with a child who has a diagnosis of Autistic Spectrum Disorder (ASD), and PPR 3 the development of an intervention for a boy with a diagnosis of Attention-deficit hyperactivity disorder (ADHD). Working with complex needs through individual casework remains an integral part of the job at the Birmingham EPS, and in the profession generally is seen as important by service users (e.g. Farrell et al., 2006; Boyle and MacKay, 2007).

The five independent professional practice reports (PPRs)

PPR 1 involved capacity building work aimed at improving levels of engagement and motivation in the classroom for two Year 6 classes. The project was commissioned by the school following Local Authority recommendations that the school should improve general attainment levels for Year 6 pupils. A systematic review of the 'goal achievement literature' (e.g. Ryan et al., 1996; Deci and Ryan, 2000), and specifically the Assessment for Learning (AFL) research paradigm (Black and William, 1988) was a central aspect of the work. Numerous evidence-based strategies in relation what would facilitate 'mastery-focused' classrooms were developed for consultation with the school's teaching staff and senior management team (SMT).

Redressing 'power imbalance' proved an important component of this piece of research. At the referral stage of this work underachievement had been initially presented by the school's SMT as a 'within child problem'. Accessing the views of children as well as those of the teaching staff through focus-group consultation and re-conceptualising the focus of the work 'bottom up' was a core feature of this work, so that those involved at the chalk-face of intervention, i.e. both recipients and those delivering the strategies, would fully support the school improvement agenda. 'Ownership' proved a critical factor to the development of an ecologically valid approach to school improvement in that regard.

Consultation work with a school's SMT, a speech and language team, and the parents of a Year 2 boy with a diagnosis of Autistic Spectrum Disorder (ASD) comprised the focus for **PPR 2**. Referral for my involvement came via the school's SMT where the agreed focus of the work was to involve the development of an augmented communication system within the home and school environments. At this stage of my training I had little real world experience of working with children experiencing sensory integration difficulties and the case study presented me with an opportunity to engage fully with the relevant literature, which is why this piece of work was chosen.

The report is presented in two sections. Part one presents a detailed review of the literature with regard to augmented communication systems within the context of sensory integration difficulties. Part two presents an account of the difficulties that I encountered as a TEP as the consultation process unfolded. The casework draws upon the 'working with parents and families literature', and particularly research involving families with children with SEN, and utilises some of that evidence-base in the form of Dale's (1994) negotiated model of consultation. A history of poor social relations between the school's SMT and the boy's parents, and differing social realities particularly with reference to the notion of 'deficit', had a significant impact on this piece of casework. Despite attempts to put consultation on a more constructionist footing through exploration of 'future expectations' (e.g. Wedell, 2008), joint goals were not formulated and conceptualised. The casework raises numerous ethical issues in relation to working with competing agendas of schools and families within multi-agency settings.

PPR 3 involved an initial referral relating to a child's ADHD 'condition'. At the time of selecting this particular area of research and in covering my allocated patch of schools as a TEP, the ADHD label was frequently being positioned by all manner of professionals as the single causal factor to a myriad of 'difficulties', and this often within the context of exclusion. As with PPR 2, the casework presented me with the opportunity to visit the literature in depth, and to develop a thorough and credible knowledge base that I might reference in consultation with other professionals.

The report briefly discusses some of the key epistemological and methodological issues associated with diagnosis of ADHD and related symptomatology. An overview of contemporary approaches to intervention is provided and this is followed by critical reviews of the literature deemed relevant to this case study, i.e. behaviourist, cognitive-behavioural and non-verbal instructional approaches.

The class teacher's reference to deficit brought connotations of foregoing responsibility, and shifting focus through collaborative consultation with the child and class teacher, from one of symptomatology to one of 'purpose' (Cooper, 1997), was a central feature of this research. The classroom context and particularly the elevated stress levels of the class teacher resulted in an interactionist perspective (e.g. Goffman, 1969) heavily influencing problem formulation and intervention design. Meeting the needs of not only the child, but also the class teacher, was a decisive factor to the success of PPR 3. A

non-verbal, preventative approach to behaviour management proved effective in terms of outcomes.

PPR 4 provides an evaluation of a Wave 2, Year 2 literacy withdrawal group, the broad aim of which was to determine 'where best to teach accelerated learning'. The introductory literature review focuses on 'best evidence' in that regard. The project differs fundamentally from the other four PPRs in that it involves evaluation of an existing intervention only. No intervention formulation was required in this instance, though recommendation in terms of whole school improvement were made to the SMT following evaluation, given that no treatment gains for the targeted approach were found. Mackay's (2007) multi-strand, eco-systemic approach and Solity's 'optimal instruction' approach (Solity et al., 2000; Solity et al., 2009; Solity and Vousden, 2009) were among the recommendations forwarded as 'best evidence' in that regard.

As with PPRs 2 and 3, knowledge of literacy provision was an area of professional practice that I was keen to develop. This was the chief reason why this topic area was selected for inclusion in Volume 2. The literature review demonstrated that many accelerated programmes had little by way of evidence-base informing their design, and Solity (2003) draws attention to the lack of informed pedagogy with regard to literacy provision in general in that regard (e.g. Wragg, 1998). Completing this project had an immediate impact on my own practice as a TEP, in terms of how I viewed Wave 2 literacy provision and literacy provision in general. I have since had several

discussions across my schools with teaching staff and SMTs, which have resulted in literacy provision being reviewed more closely. These consultations have been well received by my schools.

Similarly to PPR 2, **PPR 5** also draws from an interactionist perspective, though in this instance intervention was targeted via a behaviourist paradigm. Again, contextual factors were important with intervention design needing to be amenable to what the class teacher was confident in delivering.

Disempowerment through referral was again something that had to be broached and overcome through consultation and via other forms of data collection, i.e. classroom observation.

Whole class intervention involved training a class teacher in the use of 'descriptive social praise'. The training package was initially developed by the Birmingham EPS and was adapted to suit the research context. Outcomes were positive and I have since presented the research training materials in two other schools aimed at whole school improvement.

In summary, whilst each of these five PPRs can be seen as a stand alone piece of research, there are similarities evident across the research, some of which can be conceptualised as distinct contributions made by the TEP to children's services. These aspects of practice have also been important in terms of my own professional development, as a soon to be chartered educational psychologist.

Characteristics of referral were critical factors associated with PPRs 1, 2, 3 and 5 and at the referral stage at least, all of these case studies involved disproportionate elements of power. Seeking to redress 'power imbalance' caused by various eco-systemic influences (Bronfenbrenner, 1979) is central to the role of the EP. The British Psychological Society guidelines state that psychologists should actively promote equality of opportunity irrespective of religion, gender, ethnicity, social standing, disability or political persuasion (BPS, 2001). Posing ontological questions during consultation and moving the focus from deficit towards 'purpose', was a process that had to be managed carefully with this work in order that targets were conceptualised appropriately to ensure reliability of outcomes for all parties. Collaborative problem formulation is critical in terms of ownership, and particularly for those delivering interventions. Throughout the training process I have become strongly orientated towards the importance of context and ownership in terms of developing successful interventions with other stakeholders.

Ethical considerations with regard to power in terms of historical, socio-cultural and political context were eminent in PPR 2. This case study changed the way that I approach consultation, particularly in relation to parents. The evidence-base in relation to working with parents of children with SEN, and my own experience of consultation with parents, informs that frequently parents have too little voice in consultation, and particularly within multi-agency settings. Managing the needs of children and parents, whilst working within multi-agency environments is challenging, and consultation orientated via a thorough knowledge of the relevant evidence-base requires 'expert' skill.

Farrell et al. (2006) indicates that a distinctive EP contribution to multi-agency working may be 'building bridges between school and community' and this was certainly the case in terms of PPR 2.

Consultation underpinned by evidence-based psychology, in terms of facilitating organisational development within educational settings, is also unique to the TEP / EP role, as evidenced in PPRs 1, 4 and 5. All of these skills and the aforementioned research and practice skills contained in PPRs 2 and 3 can be seen in Volume 2 of this thesis.

References

British Psychological Society, (2001) Practical Guidance and Consent for Clinical Psychologists: working with children and young people.

www.bps.org.uk

Bronfenbrenner, U (1979) *The Ecology of Human Development*. Cambridge, MA: Harvard University Press.

Cameron, R. J. (2006) Educational psychology: the distinctive contribution, *Educational Psychology in Practice*, 22(4), 289-304.

Cooper, P. (1997) Biology, behaviour and education: ADHD and bio-psycho-social perspective, *Education and Child Psychology*, 14(1) 31-37.

Dale, N. (1996) *Working with Families of Children with Special Educational Needs*. London: RoutledgeFalmer

Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268.

Department for Education and Skills. (2005). *Every Child Matters—Change for children*. Retrieved from, <http://everychildmatters.gov.uk/etc/psychology>.

Fullan, M. (2000) *The Three stories of Education Reform*. Online article, Phi Delta Kappan, 81(8) 1-6. at: <http://www.pdkintl.org/kappan/kful0004.htm>

Goffman, I. (1969) *The Presentation of Self in Everyday Life*. London: Penguin.

Love, P. (2009) Educational psychologists: the early search for identity, *Educational Psychology in Practice*, 25(1), 3-8.

Lucas, D. J. (1989) Implications for educational psychology services of the Educational Reform Act 1988, *Educational Psychology in Practice*, 4(4), 171-178.

MacKay, T. (2007) *Achieving The Vision: Final Report on the West Dunbartonshire Reading Initiative*. West Dunbartonshire Council.

Moore, J. (2005) Recognising and questioning the epistemological basis of educational psychology practice, *Educational Psychology in Practice*, 21(2), 104-116.

Ryan, R. M., Sheldon, K. M., Kasser, T., & Deci, E. L. (1996). All goals are not created equal: An organismic perspective on the nature of goals and their regulation. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behaviour* (pp.7–26). New York: Guilford.

Solity, J. (2003) *Teaching Phonics in Context: A Critique of the National Literacy Strategy*: A paper presented to DfES seminar 'Teaching Phonics in the National Literacy Strategy.

Solity, J., Deavers, R., Kerfoot, S., Crane, G., and Cannon, K. (2000) The Early Reading Research: the impact of instructional psychology, *Educational Psychology in Practice*, 16, 109-129.

Solity, J., McNab, E., Vousden, J. I. (2009) *Is There an Optimal Level of Sight Vocabulary to Teach Beginning Readers? A development of Stuart et al's (2003) Word Frequency List*) KRM: Psychological and Educational Research Consultants (accessed through seminar held at University of Birmingham: Doctoral Training programme for Educational Psychologists - May 2009.

Wedell, K (2008) Seeing each other's points of view – SENCos and parents, *British Journal of Special Education*, 35(1) 57-59.

Wragg, E. C., Wragg, C. M., Haynes, G. S., and Chamberlin, R. P. (1998) *Improving Literacy in Primary School*. London: Routledge.

Professional Practice Report 1

**Supporting Schools in Enhancing Pupil Engagement
and Academic Achievement Motivation in the
Classroom: Implications for EP Practice Drawn from a
Critical Review of the Literature 2000-2008**

**Postgraduate Professional Training Programme in Educational
Psychology: University of Birmingham**

Abstract

This report provides an account of the work I carried out in my role as a Trainee Educational Psychologist in a Birmingham primary school. My work involved improving levels of engagement and motivation in the classroom for two year 6 classes. The work was commissioned by the school following Local Authority recommendations that the school should improve general attainment levels for Year 6 pupils. The work presented in this report represents Stage 1 of my involvement only. Stage 1 involved carrying out a critical review of the literature relating to improving motivation and levels of engagement in learning, and making recommendation to the school informed by that review.

Stage 2 of my involvement is ongoing and will not be presented in this report. Findings from the review suggest that mastery-structured learning environments improve motivation and engagement within the classroom. Collaborative goal-setting, facilitated through a self-regulated approach to learning and assessment, is recommended as a key mechanism to achieve mastery focus.

Background to the commissioned intervention

OFSTED reported in 2007 that the school, which forms the focus of this report, was not meeting targets for a specific year group, Year 6. Following this, the Local Authority 'Strategic Action Group', requested that the school

carry out a piece of action research as a means of meeting the needs of their Year 6 children.

I carried out an initial consultation with the Head teacher of the school. Much of the focus of the discussion centred on 'disengaged pupils' and pupils 'lacking motivation in the classroom'.

Brief classroom observations were carried out followed by two focus group consultations with two groups of Year 6 children. Each group, one from each Year 6 class, contained eight Year 6 children randomly selected by myself. The general picture to emerge from the focus groups was that children did not feel that they were being heard by the school, nor did they feel involved in the learning process (see Appendix 'A' for overview of focus group data).

A second meeting was held with the Head Teacher, where it was agreed that a review of the literature in relation to 'enhancing motivation' would take place, and that the evidence from this review would be discussed at a next meeting, which would include the Year 6 teaching staff. It was also suggested that the school form a research facilitation group to link with my own involvement in planning and reviewing the impact of the resultant intervention. It was envisaged that staff involvement would improve ownership of the intervention strategy, which would potentially mediate and increase its effectiveness (see Fullan, 2006). Great care was taken at this second meeting to ensure that the agreed aims of the research were in accordance with the specific needs of the school, and Local Authority requirements. Research shows that organisational

change is more likely to occur where research aims and purposes are planned effectively and appropriately at the outset of research (Dickenson, 2000; Timmins et al., 2003, 2006).

The remainder of this paper provides an account of this critical review of the literature. The aims of this review are to provide specific recommendations for intervention in order to improve pupil motivation levels in Year 6 classrooms.

The national context and current government initiatives for engaging pupils in learning

Black and William (1998) carried out an extensive literature review covering over 650 articles and concluded that formative assessment procedures produced significant gains for learners. Formative assessment is defined as:

‘all those activities undertaken by teachers and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged’ (Black and William, 1998 p. 2).

The aim of formative assessment is thus to enrich learning by focusing teachers and pupils on the ‘processes of learning’ and on ‘how’ pupils learn in addition to ‘what’ they learn (Black et al., 2003).

The government’s assessment for learning (AFL) strategy, chiefly informed by Black and William’s (1998) research, promotes formative assessment in schools. The general notion is that AFL is both informal and personal in terms

of learning experiences and teaching practice. The primary and secondary national strategies recommend that AFL is embedded within all aspects of teaching and learning in schools (DfES, 2003).

The theoretical underpinnings of formative assessment lie in the principles of humanistic psychology and the notion of self-actualisation (Maslow, 1956).

Recognition of the individual as a motivated, self-directed learner is a fundamental postulate of formative assessment (Costa and Kellick, 2004).

The elicitation of children's views and the facilitation of motivation in learners are central tenets of the AFL approach.

Much of academic literature concerned with formative assessment relates to goal achievement theory (Seifert, 1997). Within this framework, academic motivation is understood in terms of attempts to achieve goals. Therefore, achievement goal theory focuses on students' reasons for engaging in, choosing, and persisting with learning activities (Church et al., 2001).

Various publications recommend strategies that teachers can use to foster the right 'goal climate' for their pupils (Black and William, 1999; DfES, 2003; Ofsted, 2003). However, comprehensive government-funded studies report that many teachers have little or no idea how to implement effective formative processes, and that often they lack the motivation to try (Neesom, 2000). Black and William (1998) referred to the notion of teacher resistance and/or reluctance from their original observations:

“Teachers will not take up attractive sounding ideas, albeit based on extensive research, if these are presented as general principles which leave entirely to them the task of translating them into everyday practice – their classroom lives are too busy and too fragile for this to be possible for all but an outstanding few. What they need is a variety of living examples of implementation, by teachers with whom they can identify and from whom they can both derive conviction and confidence that they can do better, and see concrete examples of what doing better means in practice”.

(Black and William, 1998 pp. 15-16)

Developing the focus and aims of the literature review in response to the national context and the initial assessment of local need

The preliminary review of the research underpinning the government’s AFL initiative, paired with the information that I had already obtained from the school, i.e. that pupils appeared unmotivated and felt unheard, led me to conclude that my review should adopt a particular focus and aim.

The review would focus on the goal achievement literature, given that the local context and the specific problems of *a-motivation* (Ryan et al., 1996; Ryan and Deci, 2000) appeared compatible with the AFL framework. In terms of aims, the review would seek to identify salient concrete and specific examples of effective formative processes so that these might be considered during the next consultation with staff at the school.

The research questions addressed within the review were thus:

1. What classroom structures facilitate motivated, self-directed learners?

2. What specific mechanisms might staff employ to achieve this?

The review comprises two broad areas, firstly, classroom goal structure and teachers' behaviour, and secondly, the application of self-evaluation tools as a means of improving formative assessment. Self evaluation also comprises 'pupil voice' and this is covered more specifically towards the end of the current report.

Parameters of the literature search

The research strategy used for this review involved accessing two databases, PsychInfo and the British Educational Index (BEI). Searches were restricted to contemporary literature published between the years 2000 and 2008.

Initial key-word search terms used on PsychInfo and the BEI were: motivation, goal achievement theory, student engagement / disengagement, classroom, classroom structure, school, self assessment, assessment for learning, self evaluation and evaluation. Combinations of these search terms produced 242 titles and abstracts, which were reviewed for appropriateness at the initial stages of the review. Additional search terms were used on PsychInfo and the BEI at later stages of the review; these were: pupil voice, children's views, solution focused and consultation. Combinations of these search terms produced a further 90 titles and abstracts and again these were scanned for relevance to the two researched questions above.

The 'pre-2000' literature referenced in this report was identified through papers by Assor et al., (2002), Lee and Gavine (2003), Meece et al., (2006), Pintrich et al., (2000), Ryan and Deci (2000), Seifert (2004), Spavold (2005), Torrance (2001), Turner et al., (2002) and Wragg (2001). The 'pre 2000' literature was sourced through PsychInfo and the BEI, and through manual library searches.

Motivating Year 6: A Critical Literature Review

Classroom Goal Structure and Levels of Engagement/Motivation (Turner et al., (2002)

Research within the achievement goal paradigm focuses primarily on two dominant forms of motivation state, mastery and performance-focused.

Mastery orientation focuses on learning, or more specifically, the process of learning. Mastery-focused students are seen as deriving satisfaction from the inherent qualities of the task, such as interest and challenge (Meece et al., 2006). Mastery students, typically, are intrinsically motivated, self-regulating and self-determining (Seifert, 1997; Dweck and Leggett, 1988).

Conversely, performance goal orientation relates primarily to learning outcomes and evaluation (Meece et al., 2006). Performance-oriented students focus on demonstrating high ability relative to others and use social comparisons as the benchmark for success. Extrinsic factors tend to play a

more prominent role for performance-orientated students (Pintrich and Garcia, 1991; Dweck and Leggett, 1988).

Within an achievement goal framework, classroom environment is seen as an important mediator of student motivation (Assor et al., 2002; Meece et al., 2006; Seifert, 2004). The Patterns of Adaptive Learning Survey (PALS) developed by Midgley et al., (2002) assesses students' perceptions of classroom goal structures, as well as personal goal orientations. PALS is a widely used measure within the literature which demonstrated good reliability (Smith, et al., 2002).

Avoidance-behaviour is a construct that has been operationalised by the PALS in the assessment of student motivation and engagement levels. Avoidance behaviours are seen as largely informed by self-worth theory (Seifert, 1997) with failure-avoidant students seen as not working because of a threat to ability perceptions (Covington, 1984). Studies have identified a number of specific avoidance behaviours, such as purposefully withdrawing effort (self-handicapping), avoiding seeking help and resisting novel teacher approaches (Butler, 1998; Butler and Newman, 1995; Farrell and Dweck, 1985). Similarly, Jarvis and Seifert (2002) identify 'learned helplessness' as a related avoidance-behaviour.

Whilst research suggests that students can hold multiple goals within the classroom, and that espousing both high mastery and high performance goals can be facilitative of optimal student engagement (Bouffard, et al., 1995;

Meece and Holt, 1993; Pintrich, 2000), the bulk of the evidence suggests that mastery-focused structures produce greater levels of engagement for most students most of the time (see Ryan and Deci, 2000; Meece et al., 2002 for overview). For example, both experimental and survey-based research has shown self-handicapping to be more prevalent under performance goal conditions than mastery goal conditions (Butler and Neuman, 1995; Ryan et al., 1998; Midgley and Urdan, 2001). Dweck (1986) shows that performance structures can facilitate adaptive behaviours if student confidence is high, but if confidence is low, over-emphasis on performance structure can have the opposite effect.

Turner et al., (2002) carried out a study examining the relationships between classroom goal structure and student reports of avoidance behaviours. In addition to quantitative analysis of self-report sources, the study provides a discourse analysis of teacher instructional practices as they relate to the general learning environment and the specific variables studied, i.e. goal structure and avoidance behaviours. The chief aim of this study is to provide detailed insight with regard to the specific teacher practices that influence students' goal achievement behaviours.

A total of 1,197 sixth-grade elementary students (equivalent to Year 6 primary in England) completed self-report scales. Perceptions of classroom goal structure and avoidance behaviours were operationalised through the PALS (Midgley, 2002) with three avoidance behaviours comprising the scale; withdrawing effort, resisting novelty and avoidance of help seeking. Audio-

taped records of teacher instruction were obtained from nine randomly chosen classrooms. Observation notes were taken by two researchers in each of the classrooms as a means of supplementing discourse-coding procedures. Two researchers coded the transcripts independently before notes were compared to reach consensus.

Pupil self-report measures indicated avoidance-behaviours varied significantly across classrooms. Self-handicapping, avoidance of help seeking and of novelty approaches were reported less in classrooms where teachers emphasised learning, understanding, effort and enjoyment. Thus avoidance was less evident in classrooms perceived to have a high mastery-focus.

The quantitative data reveal compatible findings. Discourse analysis showed that teachers conveyed substantial 'mastery messages' to students in classrooms that were perceived as mastery-focused.

Turner et al's., (2002) findings are consistent with other research that operationalises similar avoidance-behaviours (Butler and Newman, 1995; Ryan et al., 1998; Midgley and Urdan, 2001) and with the wider research supporting mastery-focused pedagogy (see Meece et al., 2002; Seifert, 2004).

This is a notable study by Turner et al., (2002). Few studies within the achievement goal paradigm incorporate both quantitative and qualitative components of research design, and much of that research espouses only theoretically-based values as the basis for recommendations for cultivating

mastery-focused environments (Seifert, 2004). The qualitative data obtained from the Turner et al., (2002) study allow for detailed and concrete recommendations to be made with regard to informing effective teaching practice. For example, the modelling of thinking processes in relation to being unsure, learning from mistakes, and asking questions, were all effective strategies used within high mastery / low avoidance classrooms. The highlighting of procedural direction and the elaboration of key concepts and features are also 'mastery-enhancing strategies' whose saliency is demonstrated through discourse analysis.

With the exception of a small number of studies (Skinner and Belmont, 1993; Patrick et al., 2001; Roeser et al., 1996), previous research characterising mastery goal structures focuses primarily on the cognitive features of instructional practice (Meece et al., 2002). The detailed analysis carried out in Turner et al's (2002) study illustrates that affective components of instruction, as well as the cognitive components, are important to high mastery-oriented classrooms. Avoidance goals were found to be lower in classrooms where instruction incorporated both cognitive and affective components.

Recommendations made by Turner et al., (2002) with regard affective instruction include, supporting effort, evoking humour, giving personal attention and encouragement and providing a context of peer support. These findings are consistent with Patrick et al., (2001) who found that teachers in classrooms with high mastery structures exhibited academic and affective support and teachers in low mastery classrooms exhibited one or the other, but rarely both.

Quantitative data can lack context, and by contrast contextually rich qualitative data are vulnerable to overly-subjective researcher interpretation (Usher, 1996). The thorough, reflexive research design in Turner et al's., (2002) study enhances the validity of the data and the conclusions drawn by the research team. Audio-taped transcripts were independently coded by two researchers and this process was supported by other sources of qualitative data, such as non-participant observation. The qualitative data triangulate with the survey measures obtained, so that overall, the findings from this study can be considered solid and robust.

Key recommendations for practice informed by Turner et al., (2002) are that:

- in order to minimise avoidance behaviours, classroom goal structures should be mastery focused; and
- within mastery environments, teaching practice should be holistic in incorporating both cognitive and affective mastery instruction.

Autonomy-enhancing teacher behaviours (Assor et al., 2002)

In accordance with self determination theory (Ryan and Deci, 2000), students are more likely to value and have positive experiences towards learning tasks when teachers support autonomous learning (Grolnick et al., 1991; Grolnick and Ryan, 1989). Not surprisingly, research shows that behavioural and

cognitive task engagement is enhanced when learning tasks are valued by students (Connell, 1990; Deci et al., 1996; Ryan, 1993).

Teacher behaviours (TBs) that affect students' feelings towards learning engagement have been broadly categorised as either 'autonomy enhancing' or 'autonomy suppressing' behaviours (DeCharms, 1976; Deci et al., 1994). Several authors further delineate these broad categories (Grolnick et al., 1997; Ryan et al., 1996; Skinner and Belmont, 1993) and more recently interview data (Assor, 1999; Assor and Raveh, 1993) have shown that students can differentiate between six types of teacher behaviours which are likely to influence student autonomy (See Table 1 below).

Table 1: Types of autonomy-affecting teacher behaviours (adapted from Assor et al., 2002)

Autonomy Enhancing TBs	Autonomy Suppressing TBs
1. Fostering relevance of the learning process – explaining relevance and contribution of learning task to students 2. Providing choice – relating to tasks consistent with students' own values and goals	4. Forcing meaningless, uninteresting activities
3. Allowing criticism & encouraging independent thinking	5. Suppressing student opportunities to express criticism and independent opinion
	6. Intruding – intervening to redirect ongoing behavioural sequences (disrupting natural rhythm)

Operationalising the six TB constructs (Assor, 1999, Assor and Raveh, 1993) through Likert-type questionnaires, Assor et al., (2002) carried out a study that examined students' perceptions of their feeling states and levels of behavioural and cognitive engagement within the classroom. The study aimed to understand which TBs best predict classroom engagement.

A total of 857 elementary school students aged between eight and fourteen years completed the questionnaires. All questionnaires were completed anonymously and without the teacher being present.

Children across all ranges of the sample differentiated amongst the six types of autonomy-affecting TBs, lending support to previous research differentiating the simplistic 'autonomy-enhancing' and 'autonomy-suppressing' constructs (Assor, 1999; Grolnick et al., 1997; Ryan et al., 1996; Skinner and Belmont, 1993).

Across the sample, two TB categories were found to have a significant effect on students' motivation to learn. 'Fostering relevance' was found to be strongly correlated with positive feeling states ($p < .001$) and cognitive and behavioural engagement ($p < .001$) within the classroom. Conversely, 'suppression of criticism' was associated with negative feeling states ($p < .001$) and cognitive and behavioural disengagement ($p < .005$).

Much of the previous research on autonomy-affecting TBs proposes freedom of action, or choice, as a chief variable in facilitating intrinsic motivation (e.g.

Graubard, 1972; Deci and Ryan, 1985; Nicholls, 1984). Consequently, recommendations for practice often suggest that minimal guidance and consultation should be provided so as to 'leave space' for self-orientated goals (see Ryan and Deci, 2000). Whilst 'provision of choice' was found to be a factor in facilitating student autonomy, 'fostering relevance' was found to be a more important component of autonomy support in this study (Assor et al., 2002).

Based on their findings, Assor et al., (2002) propose a less passive and simplistic approach to autonomy-supportive TB, recommending instead an active-empathic approach by educators. This requires educators initially to understand the student's personal goals and then link school tasks to those needs. The notion here is that extrinsic goals can be mediated towards an intrinsic orientation (Meece, et al., 2002). Research findings derived from other ecological contexts support these recommendations. For example, studies show that adolescents' need for autonomy should not be identified with total independence and detachment from parents (Ryan, 1993; Ryan and Lynch, 1989).

This is an important study by Assor et al., (2002), not only as it provides valuable recommendations with regard to some of the finer aspects of motivation-enhancing teaching practices, but also in that given the age range of the sample used, the data allow for those recommendations to inform practice across and within a broad range of educational and developmental context.

In Assor et al's., (2002) study the identification of the importance of autonomy-enhancing/suppressing TB was comparable across the entire sample, i.e. ages eight to 14 years. Generally, the developmental literature would suggest there to be a much weaker need for autonomy support in middle childhood (7 – 11 years) than in later periods of child development, in early adolescence (11-13 years) for example (e.g. Erikson, 1963; Piaget, 1953; Cobb, 1998; Feldman and Quartman, 1988). Whilst Assor et al's (2002) findings run counterintuitive to this wider theory and research re: pan-cultural trends within the developmental process, it should be noted that this study was carried out in-situ and in relation to the specific environment that was being assessed, i.e. school. In this sense, Assor et al's., (2002) research can be considered robust in terms of ecological validity (Robson, 2002).

Construct validity (Cohen and Manion, 2007) can also be considered robust. Students' feeling states and cognitive and behavioural engagement were assessed across six items and Cronbach alpha scores for these items (0.76 and 0.72 respectively) indicate good reliability (Robson, 2002).

With regard to implications for practice, this study (Assor et al., 2002) suggests that particular attention should be paid by educators towards enhancing 'relevance-fostering' and reducing 'criticism-suppressive' behaviours in both the latter stages of primary settings, i.e. years 5 and 6, as well as in Key Stage 3 secondary school settings.

Key recommendations for practice informed by Assor et al., (2002) are that ‘autonomy’ within mastery structured environments should be supported through teacher behaviours that:

- allow students (openly) to criticise in a constructive manner;
- foster choice; and
- are characterised by an actively empathic approach, so that in addition to choice provision, the ‘relevance’ of learning is discussed with students.

Pupil affective state, directly resulting from staff behaviour, as a mediator of pupil motivation within the classroom (Assor, et al., 2005).

Self determination theory (SDT) posits that individuals strive to realise an authentic, autonomous state, via self-chosen values, interests and goals (Ryan and Deci, 2000). In this respect, SDT emphasises the negative impact that controlling and restrictive adult behaviours potentially have on an individual’s motivation and well being.

In line with SDT (Ryan and Deci, 2000) and operating from a ‘functional emotion perspective’ i.e. that emotions inform action (Buck, 1988), Assor, et al., (2005) carried out a study that looked at the effects of directly controlling teacher behaviour (DCTB) on levels of pupil / student engagement within the classroom.

The term DCTB refers to explicit attempts by the teacher instantly to change the behaviour in which children are presently engaged or the opinions that they hold, through approaches such as instruction or direction, and not allowing expression of opinion that differs from the teacher's. The study extends the previous work of Assor et al., (2001) through attempting more sensitively to identify learners' motivational states within the classroom environment.

Emotion is seen as an important mediator of pupils' motivational orientation and behaviour (Buck, 1988). Frijda (p.204. 1999) states that affect and arousal signal that a motivationally-relevant event has occurred within a person's environment. Experimental studies have shown that teacher's controlling behaviours serve to undermine positive affect and intrinsic motivation in children (Deci, et al., 1996), and work by Assor et al., (2002) demonstrates that 'suppressive teacher behaviours' and 'autonomy-supportive teacher behaviours' produce negative and positive feeling states in learners respectively.

In the Assor et al., (2005) study, a sample of 319 Year 4 and 5 children and their teachers were accessed across four Israeli primary schools. Pupils completed questionnaires in relation to DCTB, negative emotional experiences, motivation states, (i.e. intrinsic, extrinsic and a-motivation), and restricted and intensive engagement within the classroom. Class teachers were not present when the children completed the questionnaires. Teachers completed questionnaires in relation to their assessment of pupils' levels of

intensive academic engagement. All questionnaires used 5-point Likert scale format.

Results suggest that DCTB has a negative impact on students' emotions, motivational orientation and levels of engagement within the classroom. The findings are consistent with the wider research within the 'autonomy paradigm' that suggest that autonomy-suppressive TB undermines academic engagement (Assor et al., 2002; Deci and Ryan, 1985; Seifert, 2004).

Notably, whilst a number of students associated DCTB with negative emotions, extrinsic motivation and restricted engagement, a significant number also associated a-motivation with those factors, i.e. with negative emotions, extrinsic motivation and restricted engagement. A-motivation has been defined as 'the lack of volition to make any effort and engage in activity' (Ryan and Deci, 1985). Ryan and Deci (2000) go on to refer to it as 'a state of lacking intention to act'. A number of studies make the distinction between a-motivation, extrinsic and intrinsic motivational states (Ryan and Deci, 1985; Vallerand et al., 1993)

Within a self-determination framework, the three identified motivational states can be viewed along a continuum. In reference to this Ryan and Deci (2000) equated a-motivation as 'unwillingness', extrinsic motivation as 'passive compliance' and intrinsic motivation as 'active personal commitment'.

The distinction made between a-motivation and extrinsic motivational states is an important one made in Assor et al's (2005) study. Extrinsic motivation refers to performance of an activity to gain an external reward (Deci and Ryan, 1985; Ryan and Deci, 2000) and research shows that extrinsically motivated tasks often incorporate aspects of autonomous regulation (Ryan and Connell, 1989; Vallerand, 1997). For example, external rewards such as career aspirations may be reinforcing due to personal endorsement rather than teacher/parental control. Controlled trials (Deci et al., 1994) and other research findings (Ryan and Deci, 2000) demonstrate that the provision of meaningful rationales for target behaviour facilitate the internalisation of extrinsic motivation. Thus, for extrinsically identified students, TB that fosters choice (Graubard, 1972; Deci and Ryan, 1985; Nicholls, 1984) and/or relevance (Assor et al., 2002) has the potential to facilitate personal endorsement rather than mere compliance and submission to teacher control.

The distinction made between a-motivated and extrinsic states has important implications with regard to teaching practice. Assor et al., (2005) suggest a-motivated students may be unreachable in terms of these teacher strategies alone, and postulate poor task differentiation as a key mediating factor for student apathy. Whilst these conclusions can be seen as speculative, since they go beyond the data obtained from this study (Assor et al., 2005), other studies show significant associations between a-motivation and students not feeling competent to complete an activity (Deci and Ryan, 2000; Ryan, 1995; Vallerand and Read, 1984; Vallerand et al., 1992). Seligman (1973) and Abramson et al., (1978) liken a-motivation to learned helplessness.

At very least, the identification of a-motivational states suggests that caution should be exercised by educators in attempting to engage students via what might be seen as over-simplistic TB strategies. Appropriate differentiation is an additional key variable that should be carefully managed by practitioners wishing to engage individuals, and groups of learners.

Key recommendations for practice informed by Assor et al., (2005) are that:

- current types of student motivation can be measured (i.e. intrinsic, extrinsic and a-motivated);
- teacher behaviours that orientate students towards an intrinsic state might be adopted for students identified as extrinsically and intrinsically motivated (i.e. maintenance in the latter case); and.
- in addition to teacher behaviours that orientate students towards an intrinsic state, a sensitive focus on differentiation should be adopted by teachers in relation to students identified as a-motivated.

The role of self-evaluation in facilitating the development of a mastery focus in the classroom and assisting teachers in appropriate differentiation (Lee and Gavine, 2003)

Recent government initiatives, such as the standards agenda (DfES, 2005), draw attention to the importance of incorporating children's views in the planning of educational goals and the means in which these should be

realised. In this respect the assessment for learning (AFL) strategy may be viewed as a key mechanism that can facilitate teachers and pupils in working towards shared learning targets (DfES, 2003). AFL assumes that providing students with opportunities for planning and self assessment in relation to how they learn, boosts their motivation and confidence as learners. The focus on 'how' students learn is integral to the mastery focused classroom climate / structure.

Many schools experience difficulties in successfully incorporating self-evaluation processes and procedures into their daily pedagogy (Wragg, 2001; Black and William, 1998). Limitations in teachers' skills in eliciting children's views may be a significant contributory factor to such difficulties (Black and William, 1998). A study by the Association of Scottish Principle Educational Psychologists (ASPER, 1999) for example found that many teachers did not demonstrate the skills needed to elicit children's views in the classroom, despite their claiming to have the knowledge base to do that.

Pupil self-regulation and self assessment processes involve meta-cognitive skills (Butler and Winne, 1995). Self-regulation differs from self-assessment in that, in addition to cognitive awareness, it also involves pupils' knowledge of, and skills in selecting and using strategies that they can apply in order to develop and reformulate new achievement goals (Black et al., 2003). Self-regulation thus facilitates the development of practical goal-setting skills.

Lee and Gavine (2003) utilised self-evaluation as a means of raising attainment in a group of Year 7 children. The aim of the study was to develop an effective mechanism to assist teachers in implementing appropriate and collaborative goal-setting processes within the classroom.

Fifty-six Year 7 pupils were split into experimental and control groups and compared across two four-week phases, assessing both punctuation and spelling skills. Three ability categories were identified. As part of a mixed design, pupils recorded their own progress weekly on the 'Notice How You Learn' (NHYL) pro-forma, adapted from Fischer (1998).

The NHYL pro-forma used a series of solution focused questions that related to 'understanding of learning processes', 'current levels of attainment' and 'future goal-setting'. Solution focused approaches are a systematic procedure for conducting goal-setting conversations between two individuals (Rhodes and Ajmal, 1995). Typically solution focused qualitative statements are rated on a numerical scale of 1-10 by the client. Quantitative data were also obtained through weekly spelling tests and pre and post intervention punctuation tests.

Both the quantitative and qualitative data suggested that Lee and Gavine's (2003) intervention was successful in raising attainment levels for Year 7 pupils. The findings are consistent with other controlled studies that have trained teachers in developing pupil self-assessment techniques (Fernandes and Fontana, 1996; Fredrickson and White, 1997; Rock, 2005) and with

anecdotal evidence from other self-evaluation-focused interventions (Gersch, 1987; Gersch and Brown, 1990)

At the end of each four-week period, between-group analysis indicated significant differences for spelling and punctuation test scores for all abilities within each experimental condition. The qualitative findings from Lee and Gavine's (2003) study are equally impressive. NHYL response questions were categorised as either 'external learning strategies' or 'internal learning strategies' at the outset of the study, and pupils' attributions with regard to intrinsic approaches to learning were found to have increased by more than half within the experimental condition / intervention group. Table 3 below shows the trend in learning styles across the eight-week intervention period.

Table 3: Reported learning strategies at pre and post intervention levels

	<i>Pre-test</i>		<i>Post-test</i>	
	<i>Internal</i>	<i>External</i>	<i>Internal</i>	<i>External</i>
Group 1	40	135	87	86
Group 2	20	140	80	103

(Lee and Gavine, 2003)

The solution-focuses intervention appears to have initiated a notable shift towards intrinsic learning approaches in relation to punctuation and spelling skills for this sample of students. The facilitation of mastery-focused goals is a key finding to emerge from this study. These findings suggest that a solution-

focused approach (Rhodes and Ajmal, 1995) is compatible with the government's AFL initiative (DfES, 2003).

A number of cautionary points should however be made in relation to the qualitative data. Firstly, the data do not explicitly indicate whether the strategies reported were actually being implemented by the students during classroom activities. As Robson (2000) notes, participants do not always do what they say they do.

Secondly, and a related point, these are subjective reports only. Whilst correlation scores indicated that teacher and pupil reports of spelling performance were consistent with actual scores for spelling, pupil reports of punctuation performance were not consistent with actual punctuation performance test scores. Teacher reports of punctuation performance did correlate with actual punctuation performance scores and this might suggest that pupil self reports (or teacher assessments) were unreliable. Lincoln and Guba (1985) note how respondent bias and the 'good bunny effect' can be particularly problematic in studies involving the presence of authority figures.

In summary, the evidence for the effectiveness of self-assessment in contributing to enhanced student motivation, and focusing students on 'learning how to learn' is substantial (Black and William, 1998; Fernandes and Fontana, 1996; Fredrickson and White, 1997). The controlled aspect of Lee and Gavine's (2003) research design, in conjunction with the teacher assessments and pupil self-reports, ensures that the findings from this study

are reliable (Cohen and Manion, 2007). The work of Lee and Gavine (2003) indicates that solution-focused methods can afford an effective approach for eliciting children's views and facilitating self-regulated and appropriately differentiated goal setting within the classroom environment. Taken with other research findings (Rock, 2005), this suggests that solution-focused methods are a sturdy approach with regard to self-assessment and the development of mastery-focused classrooms. A key strength of this type of intervention is its versatility. Solution focused methods can be used within whole class, small group, or individual learning context (Rhodes, 1993).

Key recommendations for practice informed by Lee and Gavine (2003) are that:

- a solution-focused approach to self-evaluation is conducive to the development of mastery-structured learning environments, and might be used to facilitate greater levels of intrinsic motivation in students;
- solution-focused evaluation should be used consistently / sustained over time; and
- staff need to be adequately trained and supported in the use of solution focused evaluation.

Self-evaluation and 'green is for go': an alternative method (Spavold, 2005)

One of the findings to emerge from the seminal work of Black and William (1998) was that teachers often had little idea of how to carry out formative

assessment, at least effectively. Similarly, the QCA's extensive 'approaches to formal assessment project', found that teachers frequently saw formal assessment as extra, unwieldy unproductive work that simply eroded their time (Neesom, 2000).

Spavold (2005) carried out a piece of action research with the aim of raising motivation and engagement levels in her own students. Using a basic approach to formative assessment, the study's rationale was that if a clear and unambiguous method proved effective, then such a method might be incorporated more readily into teaching practice across the school.

Seventy-nine students, across three Year 11 science groups, taught by the researcher, were exposed to the intervention. The strategies used involved the teacher setting clear objectives at the start of each lesson and students writing these down, and then assessing their own understanding of the learning objectives at the end of each lesson. A simple 'traffic light system' was used as a graduated self evaluation tool to determine levels of student understanding of the set learning objectives.

Measures assessing levels of motivation and attitudes towards science classes were obtained through a 3-point Likert scale questionnaire, pre and post intervention. Qualitative data were also obtained post intervention through two focus groups. The intervention lasted two terms, and during that time field notes were taken by the class teacher in relation to how she

considered her lessons had gone. Science classes for each group occurred approximately three times per week.

Quantitative results suggest that a significant number of students had a clearer idea of lesson content and the expected learning outcomes post-intervention compared to pre – intervention. These findings were comparable across all three Year 11 classes. The majority of pupils were also found to have reflected on learning outcomes following each lesson. In Group 2, for example, the number who previously reported that they never reflected on what they had learned decreased from 48% to 24%. Questionnaire data also showed that the intervention had the greatest impact on Group 2, who were reported pre intervention to have the most prevalent behavioural problems, and number of disaffected boys.

Spavold's own field notes support the quantitative result. Narrative accounts report that motivation had improved across all three groups during the intervention period. Spavold (2005) also noted that students were quicker to settle when they came into the room when objectives were set out on the board, and that behaviour improved for Group 2 students, particularly the boys. These notes were compiled pre questionnaire analysis.

The focus group data provide further insights. Three key issues emerged. Firstly, whilst students felt that the objective setting was helpful, confirming the questionnaire responses, they stated that it would have been much more helpful if it had been explained why particular learning objectives had been

set. These findings are compatible with the research that suggests relevance is a key motivating factor for students (Assor et al., 2002; Deci et al., 1994) and run consistent with the AFL recommendations (QCA, 2003).

Students also found that the 'objectives setting process' was a useful revision aid, maintaining that it also helped them to focus on what they had to learn. In this respect, the self evaluation process can be seen as a useful mechanism in amalgamating both top down pressures and local need. A frequent criticism of the AFL strategy, forwarded by educators, is that teachers need to demonstrate outcomes and that they have limited time to facilitate self-evaluating learning experiences in their students (Black et al., 2003; Fullan, 2006).

Thirdly, whilst many of the children enjoyed using the traffic light system, some did express concerns that the system was childish and that it made them feel silly. These students reported that they did not fully engage with the system and simply 'filled it out to keep the teacher happy'. In their work with pupil consultation and organisational change, Macbeath et al., (2001) emphasise the importance of developmentally appropriate tools for eliciting children's views. Macbeath et al., (2001) report that older children prefer a more serious response format, though they do not stipulate specific age ranges in their paper.

The compatibility of the research aims and methodology is a key strength of this study and within the context of the aims and purposes of this review,

methodologically this study demonstrates important principles. The cyclical nature of action research (Kemmis and Wilkinson, 1998) allowed for change to be developmental. Fullan (1991) warns against the limitations of 'one hit' action research and suggests that change should be an emergent process within organisations. The action research approach allowed Spavold (2005) to revisit her original strategies after her initial data collection. Spavold (2005) reports that since the initial intervention she uses her objectives setting strategy with all of her year groups, but that the traffic light system is used only with Year 7. She also reports active promotion of open-ended questioning at the outset of her lessons in relation to the relevance that lesson objectives may have for students. Socratic type questioning is one of the key recommendations in relation to formative assessment made by Black and William (1998).

Witkin and Altshuld (1995) draw attention to the importance of accurate needs assessment in action research. The participatory aspect of this research design (Cousins and Earl, 1995) ensured that local need was met. Spavold (2005) knew the context, and had an 'insider's perspective' on what was achievable and relevant for the school. She also had a genuine interest in the programme achieving its aims. Suchman (1967) warns against pseudo-evaluation and the notion of posture, i.e. ritualistic evaluation without researchers having any real investment in the research.

However, inevitably the 'practitioner as researcher' threatens the validity of the research findings. The questionnaire was devised by Spavold (2005) and

comprised a very narrow and limited response format, i.e. 3-point Likert scale and a minimal range of questions. In this respect, Spavold's (2005) research might be criticised on the grounds of failure to control confirmatory bias (Robson, 2002). Similarly, the central role in the researcher as the mediator of the intervention poses reliability issues (Cohen and Manion, 2007). Some students confessed to response bias (Lincoln and Guba, 1985) in the focus group interviews; moreover Spavold (2005) was the sole source of the observation data collected pre and post intervention.

However, the qualitative aspects of this research design and the triangulation of data go some way towards compensation for these limitations. The open-ended approach to the focus group interviews allowed students to expand on the closed format of the questionnaires, and Macbeath et al., (2001) suggest that collaborative school inquiry is more successful through the use of trusted and familiar teachers than with a neutral stranger. Nonetheless, the use of additional staff members in terms of classroom observation and focus group interviewing would have enhanced the reliability of the data.

Spavold's (2005) research demonstrates that simple, self evaluation methods can be incorporated into everyday teaching practice, and that children's views elicited from those practices can be oriented towards making lasting school improvement. Students were more engaged in the learning processes as a result of this intervention and the cyclical nature of action research methodology (Lewin, 1946) played a key role in achieving the programme aims. However, Spavold failed to include a generalisation phase in her

design, losing the opportunity therefore to check how / whether colleagues could be supported in implementing the objective-setting and self-evaluation method with fidelity, and / or whether pupils achieved similar gains in other subject areas.

Key recommendations for practice informed by Spavold (2005) are that:

- objectives setting procedures are an effective 'mastery-facilitating' mechanism when students understand why objectives are being set (i.e. relevance);
- the 'traffic lights' system is an effective 'mastery facilitating' mechanism, where the approach is developmentally appropriate, and when validity of student responses is reviewed thoroughly by staff; and
- 'objectives setting' and 'traffic lighting' when developmentally appropriate, can aid revision and therefore can be used to facilitate both process and performance goals in schools.

Consulting effectively with children about their learning (Macbeath et al., 2001)

International (UNICEF, 1989) and national legislation and policy (e.g. Education Act, 1996; Children Act, 1989; DfES, 2001) require local authorities to consult with children and young people when making decisions about their education. With teacher and learner consultation at the heart of AFL, 'the formative assessment agenda' is very much in the spirit of this legislation.

Much of the literature suggests that schools fall short, not only in eliciting children's views (Cremin and Slatter, 2004; Stevenson, 2003), but also in actually listening to and acting upon them (Dunmur, 2002; Fajerman et al., 2004). Fullan (1991; 2000) suggests that teachers / schools lack the necessary skills to include children as a resource, and proposes that fundamental cultural and organisational change is required in order to achieve this.

Macbeath et al., (2001) carried out an action research study looking at consultation processes in schools, based in two primary and seven secondary schools. Participating schools were selected on the basis that they were already considered by the research team (Macbeath et al., 2001) and Local Authority to be successful at including children's and young people's views in their learning ethos. The study draws from a positive psychology framework (Seligman & Csikzentmihalyi, 2000) and on the principles of capacity building, with the aim of helping schools further to develop effective consultation with their students.

At the outset of the study, all nine schools completed pupil questionnaires relating to perceptions of 'actual' and 'preferred' levels of 'pupil voice' in teaching and learning within the school. Over the next 12 months the schools used the 'preferred future data' as a springboard to consultation with their pupils. Network meetings between school representatives and the research team were carried out every three months during this time as a means of exchanging ideas and supporting the pupil consultation process. Video

footage of lessons and group meetings between staff and pupils was also used to support the staff networking consultations. Discourse analysis of the video footage was provided by the research team to aid discussion.

A number of findings emerged over the course of the year. All of the schools involved in the study reported the importance of encouraging a 'shared language' so that students could engage in discussion about teaching and learning without feeling alienated through teachers' overly-technical language. A study by Woofson et al., (2006) examining young people's perspectives of what constitutes effective consultation supports this view.

Whilst pupil involvement in target setting was prevalent across all of the schools at the outset of the study, many reported pupil dissatisfaction with it. Pupils reported that they did not spend enough time sharing ideas with staff or peers in relation to how they would achieve the targets set. Thus for many, target setting had developed an 'outcome focus' rather than a 'process' focus. Other studies report similar findings. For example, Bullock and Wikeley (2001) found that schools were failing to make the links explicit between targets and learning processes for their students.

In the Macbeath et al., (2001) study, Socratic style questioning was used effectively in some schools. Video footage along with teacher reports demonstrated that classrooms became increasingly active in terms of student involvement where teaching staff were reflective in questioning style and in voice tone. A number of other studies support these findings (Torrance, 2001;

QCA, 2003). Open ended questioning and in particular the use of 'wait time' to allow pupils time to process questions and answers was a key recommendation to emerge from Black and William's (1989) review.

Finally, in some schools, students' developmental maturity and gender were found to influence schools' success rates in eliciting children's views. For example, visual assessment materials were found to be more effective with younger children than were written sources: findings which are compatible with those of Spavold (2005). In terms of gender, in one school role play was found to be more effective with all girl groups than with all male or mixed gender groups. Macbeath et al., (2001) recommend that schools consider these factors and that they are tentative in their exploration of what might work best for their own cohorts.

A central tenet of action research is that it facilitates practical and pragmatic change within organisations (Robson, 2000). Macbeath et al's., (2001) study clearly achieves its aims in further developing good practice across the schools' network and in that respect, this is a credible piece of research.

Methodologically too, this is robust work. The ethnographic aspects of the research design, implemented over a prolonged period of time with 'practitioner and researcher', minimise reactivity and respondent bias (Robson, 2000) and the continuous feedback loops between 'researcher and the researched' demonstrate the design to be reflexive. The triangulation of video evidence with teacher and student data sources also improves the

quality and credibility of these findings. Maxwell (1992) suggests that audio or video evidence should be sought where possible in flexible research designs as a means of improving descriptive validity.

The networking approach is a notable feature of Macbeath et al's., (2001) study. Community-wide networking is currently thought to be as one of the most effective mechanisms to support sustained school improvement (DfES, 2003; Fullan, 1992, 2000; 2006). Moreover, the positive psychology approach taken (Seligman & Csikzentmihalyi, 2000), building on the schools' existing strengths rather than accentuating weaknesses, ensures that ethical dilemmas of real world research are minimised. Becker (1998) notes how many social scientists pay lip service only to ethical codes of conduct (such as that published by the British Psychological Society, 2000).

The positive effect of the networking group suggests that individual schools would benefit from support relating to consulting with pupils about their learning. Other research findings support this suggestion. Pedder (2006) for example, carried out an extensive study and found that whilst most teachers held values that were attuned to AFL, i.e. they believed in supporting students' 'learning how to learn', many felt that these values became eroded during everyday practice and amongst the 'top down' pressures to deliver results. Staff support fora were found to be a significant support in re-focusing teachers on their 'learning how to learn' values within the classroom (Pedder, 2006).

Key recommendations for practice informed by Macbeath et al., (2001)

are that:

- school networking (i.e. cluster work) affords an effective medium for developing good consultation with pupils;
- capacity building through networking that works from a 'positive psychology' premise can minimise ethical challenges and help to maintain staff focus and morale;
- staff need to conceptualise AFL clearly and simply so that formative assessment processes are more accessible to students, and a shared student-friendly language should be sought and developed within the AFL context so that students do not feel alienated by teachers' language;
- staff should be vigilant and discuss target setting openly with students, so that target setting does not become outcomes focused, but stays process-focused;
- reflective and Socratic style questioning incorporating the use of 'wait time' facilitates mastery environments; and
- schools should be tentative in their exploration of what methods facilitate effective consultation with their students and remain flexible in the application of these methods.

Conclusion of this literature review and consolidation of recommendations

Goal achievement theory provides an important explanatory framework capable of informing practical intervention to enhance student motivation and engagement within the classroom, and the evidence suggests that mastery-focused goal attainment is the most beneficial motivational state for learners to adopt (Black and William, 1998; Ryan and Deci, 2000). Classroom structures that facilitate autonomous, self-directed learning are the most effective in this respect (Meece et al., 2002; Turner et al., 2002) and specific behaviours, such as being open to criticism, allowing for choice, relating learning to personal experience (Assor et al., 2002), and sensitively attending to differentiation (Assor et al., 2005) can be used by teachers to cultivate 'mastery environments'.

Mastery-focused learning environments resonate with the government's AFL agenda (Black and William, 1999), and methods of self evaluation, when executed appropriately, have the potential to engage learners in self-regulation and 'learning how to learn'. Self-evaluation procedures should be simple and practical for both students and the staff who facilitate AFL through evaluation in the classroom. In this respect, solution-focused methods have been shown to be effective (Lee and Gavine, 2003), as have 'collaborative lesson objective setting' and 'traffic-light evaluation' systems (Spavold, 2005).

A key point to emerge from this review is that AFL and student self-evaluation can comprise a powerful learning process for all who reside within school environments, not only students. It is important that implementation of AFL in schools takes a developmental focus. Staff should be supported in the use of collaborative assessment techniques and processes, which can be achieved through the establishment of structural support media, i.e. networking groups, in-house staff support forums, and/or through accessing support from outside agencies (Macbeath et al., 2001).

Finally, whilst practical recommendations are often well received by organisations during consultation periods, implementing lasting organisational change within schools can be difficult for outside agencies. Both Patton (1997) and Schein (1990) warn of hidden agendas that may lead to sabotage by sponsors or research stakeholders during intervention periods, and Fullan (2000, 2006) cautions against the risk of resistance from entrenched organisational cultures. To return to my own brief in supporting the case study school in improving motivation and engagement of Year 6 pupils, consultation at the next school meeting should therefore consider factors that may have contributed to the success or failure of past change initiatives in the school, in order that the intervention can be designed on a realistic footing. It is also important that regular and ongoing evaluation procedures are put in place in order to optimise the chances of a successful intervention. The work of Timmins et al., (2006) provides a useful model for consulting with organisations in this respect.

A comprehensive overview of the recommendations made in this review is provided below, which may aid consultation at the next school meeting with the Head Teacher and Year 6 staff.

Overview of recommendations informed by this literature review:

Key recommendations for practice informed Turner et al., (2002)
<ul style="list-style-type: none"> • in order to minimise avoidance behaviours, classroom goal structures should be mastery focused; and • within mastery environments, teaching practice should be holistic in incorporating both cognitive and affective mastery instruction.
Key recommendations for practice informed by Assor et al., (2002)
<ul style="list-style-type: none"> • allow students (openly) to criticise in a constructive manner; • foster choice; and • teacher behaviours are characterised by an actively empathic approach, so that in addition to choice provision, the 'relevance' of learning is discussed with students.
Key recommendations for practice informed by Assor et al., (2005)
<ul style="list-style-type: none"> • current levels of students motivation might be measured (ie. Intrinsic, extrinsic and a-motivated); • teacher behaviours that orientate students towards and intrinsic state might be adopted for students identified as extrinsically and intrinsically motivated (ie. maintenance in the latter case); and • in addition to teacher behaviours that orientate students towards and intrinsic state, a sensitive focus on differentiation should be adopted by teachers in relation to students identified as a-motivated.
Key recommendations for practice informed by Lee and Gavine (2003)
<ul style="list-style-type: none"> • a solution-focused approach to self-evaluation is conducive to the development of mastery-structured learning environments, and might be used to facilitate greater levels of

intrinsic motivation in students;

- solution-focused evaluation should be used consistently/sustained over time; and
- staff need to be adequately trained and supported in the use of solution focused evaluation.

Key recommendations for practice informed by Spavold (2005)

- objectives setting procedures are an effective 'mastery facilitating' mechanism when students understand why objectives are being set (ie relevance);
- the 'traffic lights' system is an effective 'mastery facilitating' mechanism, when the approach is developmentally appropriate, and when validity of student responses is reviewed thoroughly by staff; and
- 'objectives setting' and 'traffic lighting' when developmentally appropriate, can aid revision and therefore can be used to facilitate both process and performance goals in schools.

Key recommendations for practice informed by Macbeath et al., (2001)

- school networking (ie cluster work) is an effective medium for developing good consultation with pupils;
- capacity building through networking that works from a 'positive psychology' premise can minimise ethical issues and help to maintain staff focus and morale;
- staff need to conceptualise AFL clearly and simply so that formative assessment process are more accessible to students, and a shared student friendly language should be sought and developed within the AFL context so that students do not feel alienated by teachers' language;
- staff should be vigilant and discuss target setting target setting openly with students, so that target setting does not become outcomes focused, but stays process focussed;
- reflective and Socratic style questioning incorporating the use of 'wait time' facilitates mastery environments; and
- schools should be tentative in their exploration of what methods facilitate effective consultation with their students and remain flexible in the application of these methods.

References:

ASPEP (1999). *Consulting with Children: Creating and Climate so that Children can Consult*. Association of Scottish Principle Psychologists, Glasgow.

Assor, A. (1999). Value accessibility and teachers' ability to encourage independent and critical thought in students. *Social Psychology of Education*, 2, 315–338.

Assor, A., Kaplan, H., Kanat-Maymon, Y. and Roth, G. (2005) Directly controlling teacher behaviours as predictors of poor motivation and engagement in girls and boys: The role of anger and anxiety, *Learning and Instruction*, 15, 397-413.

Assor, A., Kaplan, H., and Roth, G. (2002) Choice is good, but relevance is excellent: autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork, *British Journal of Educational Psychology* 72, 261–278.

Assor, A., & Raveh., D. (1993). *The contribution of values to teachers' willingness to listen to students' criticism*. Paper presented at the 24th convention of the Israeli Psychological Association.

Becker, S. (1998). *Tricks of the Trade: How to Think about Your Research While You're Doing It*. Chicago: University of Chicago Press.

Black, P., Harrison, C., Lee, C., Marshall, B. and William, D. (2003) *Assessment for Learning: putting it into practice*. Maidenhead: Open University Press.

Black, W., and William, D. (1998) *Inside the Black Box: Raising Standards through Classroom Assessment*. London: School of Education, King's College.

Black, P., and William, D. (1999) *Assessment for Learning: Beyond the black box*. Maidenhead: Open University Press.

Bouffard, T., Biosvert, J., Veseau, C., and Larouche, C. (1995) The impact of goal orientation on self regulation and performance among college students, *British Journal of Educational Psychology*, 65, 317-329.

British Psychological Society. (2000). *Code of Conduct, Ethical Principles and Guidelines*. London: British Psychological Society.

Bullock, K. and Wikeley, F. (2001) Personal learning planning: strategies for pupil learning, *Forum*, 43(2), 67-69.

Butler, R. (1998) Determinantsof help seeking: relations between perceived reasons for classroom help avoidance and help seeking behaviours in an experimental context, *Journal of Educational Psychology*, 90, 630-643.

Butler, R., and Nueman, O. (1995) Effects of task and ego achievement goals on help seeking behaviours and attitudes, *Journal of Educational Psychology*, 87, 261-271.

Butler, R., and Winne, P. H. (1995). Feedback and self regulated learning: a theoretical synthesis, *Review of Educational research*, 65, 255-81.

Buck, R. (1988). *Human Motivation and Emotion*. New York: Wiley.

Children Act. (1989). London: HMSO. Retrieved 27 October, 2006, from www.opsi.gov.uk/acts/acts/1989/ukpga_19890041_en_1.htm

Church, M. A., Elliot, A. J., and Gable, S. L. (2001). Perceptions of classroom environment, achievement goals, and achievement outcomes, *Journal of Educational Psychology*, 93(1), 43-54.

Cobb, N. J. (1998). *Adolescence: Continuity, change, and diversity*. Mountain View, CA: Mayfield.

Cohen, L., Manion, L. and Morrison, K. (2007) *Research Methods in Education* (London, RoulledgeFalmer).

Connell, J. P. (1990). Context, self, and action: A motivational analysis of self-system processes across the life span. In D. Cicchetti & M. Beeghly (Eds.), *The self in transition: Infancy to childhood* (pp. 61–97). Chicago, IL: University of Chicago Press.

Costa, A., and Kellich, B. (2004) *Assessment Strategies for Self-Directed Learners*. California: Corwin Press.

Cousins, J. B., and Earl, L. M. (1995). *Participatory Evaluation in Education: Studies in Evaluation Use and Organisational Learning*. London: Falmer.

Covington, M. V. (1992) *Making the Grade*. Cambridge: Cambridge University Press.

Cremin, H., & Slatter, B. (2004). Is it possible to access the 'voice' of pre-school children? Results of a research project in a pre-school setting. *Educational Studies*, 30(4), 457–470.

DeCharms, R. (1976). *Enhancing motivation: Change in the classroom*. New York: Irvington.

Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, 62, 119–142.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.

Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268.

Deci, E. L., Ryan, R. M., & Williams, G. C. (1996). Need satisfaction and the self-regulation of learning. *Learning and Individual Differences*, 8, 165–183.

Department for Educational and Skills (DfES) (2001) *Special Educational needs Code of Practice*. Nottingham DfES

Department for Educational and Skills DfES (2003) *Excellence and enjoyment: A strategy for primary schools*.

Dennison, G. (1969). *The lives of children*. New York: Random House.

Dickenson, D. (2000). Consultation: assuring the quality and outcomes, *Educational Psychology in Practice*, 16(1), 19-23.

Dunmur, C. (2002). *Having your say at school*. Edinburgh: Children in Scotland.

Dweck, C. (1986). Motivational processes affecting learning, *American Psychologist*, 41, 1040-1048.

Dweck, C. S., and Leggett, E. L. (1988) A social cognitive approach to motivation and personality. *Psychological Review*, 95, 256-273.

Education Act. (1996). *Educational Act 1996*. London: HMSO. Retrieved 27 October, 2006, from www.opsi.gov.uk/acts/acts1996/1996056.htm

Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York: Norton.

Fajerman, L., Treseder, P., & Connor, J. (2004). *Children are service users too: A guide to consulting children and young people*. Edinburgh: Save the Children.

Farrel, E., and Dweck, C. S. (1985) *The Role of Motivational Processes in Transfer of Learning*. Unpublished Manuscript.

Feldman, S. S., & Quartman, T. (1988). Factors influencing age expectations for adolescent autonomy: A study of early adolescents and parents. *Journal of Early Adolescence*, 8, 325–343.

Fernandes, M., and Fontana, D. (1996). Changes in control beliefs in Portuguese primary school pupils as a consequence of the employment of self assessment strategies

Fisher, R. (1998). *Teaching Thinking*. London:Casell.

Fredrickson, J. R. and White, B. J. (1997). *Reflective Assessment of Students' Research within an Inquiry Based Middle School Science Curriculum*. Paper Presented at the Annual Meeting of AERA, Chicago.

Fridja, N. H. (1999). Emotions and hedonic experience. In D. Kahneman, E. Diener, and N. Schwartz (Eds.), *Well-being: the Foundations of Hedonic Psychology*. New York: Sage

Fullan, M. (1991) *The New Meaning of Educational Change*. London: Cassell.

Fullan, M. (2000) The Three stories of Education Reform. Online article, *Phi Delta Kappan*, 81(8) 1-6. at: <http://www.pdkintl.org/kappan/kful0004.htm>

Fullan, M (2006) The future of educational change: system thinkers in action. *Journal of Educational Change*, 7, 113-122.

Gersch, I. (1987). Involving students in their own assessment. In: T. Bowers (Ed.) *Special Educational Needs and Resource Management*. London: Croom Helm.

Gersch, I., and Brown, K. (1990). A pupils self graded work record sheet. In: M. Schere., I. Gersch, I., and L. Fry. (Eds.) *Meeting Disruptive Behaviour: Assessment Intervention and Partnership*. Basingstoke: Macmillan Educational.

Graubard, A. (1972). *Free the children: Radical reform and the free school movement*. New York: Pantheon Books.

Grolnick, W. S., Deci, E. I., & Ryan, R. M. (1997). Internalization within the family: The self-determination theory perspective. In J. E. Grusec & L. Kucynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory*. New York: Wiley.

Grolnick W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, 81, 143–154.

Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). The inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology*, 83, 508–517.

Kemmis, S., and Wilkinson, M. (1998). Participatory action research and the study of practice. In: C. Robson. (2002) *Real World Research* (2nd ed.) Oxford: Blackwell Publishing.

Lee, D., and Gavine, D. (2003) Goal-setting and self-assessment in Year 7 students, *Educational Research*, 45(1), 49-59.

Lewin, K. (1946). Action research and minority problems, *Journal of Social Issues*, 2, 34-6.

Lincoln, Y. S., and Guba, E. G. (1985). *Naturalistic Inquiry*. California: Newbury Park.

Macbeath, J., Myers, K. and Demetriou, H. (2001) Supporting teachers in consulting about aspects of teaching and learning, and evaluating impact, *Forum*, 43(2), 78-83.

Maxwell, J. A. (1992) Understanding and validity in qualitative research, *Harvard Educational Review*, 62, 279-300.

Meece, J., Anderman, E. M. and Anderman, L. H. (2006) Classroom goal structure, student motivation, and academic achievement, *Annual Review of Psychology*, 57, 487-503

Meece, J., and Holt, K (1993) A pattern analysis of students' achievement goals, *Journal of Educational Psychology*, 85, 582-590.

Midgley, C. (2002) *Goals, goal structures, and patterns of adaptive learning*. Hillsdale, NJ: Erlbaum.

Midgley, C., and Urdan, T. (1995). Predictors of middle school students' use of self handicapping strategies, *Journal of Early Adolescence*, 15, 389-411.

Neeson, A (2000) *Report on Teachers' Perceptions of Formative Assessment*. QCA. LIB4\44526\1.

Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328-346.

Patrick, H., Anderman, L. H., Ryan, A. M., Endelin, K., and Midgley, C. (2001) Teachers' communication of goal orientations in four fifth grade classrooms, *Elementary School Journal*, 102, 35-58.

Pedder, D. (2006). Organizational conditions that foster successful classroom promotion of 'Learning How to Learn', *Research Papers in Education*, 21(2), 171-200.

Piaget, J (1977) *The Development of Thought: Equilibration of Cognitive Structures*. New York: Viking Press.

Pintrich, P. R. (2000). Multiple goals, multiple pathways: the role of goal orientation in learning and achievement, *Journal of Educational Psychology*, 95, 544-555.

Pintrich, P. R., and Garcia, T. (1991) Student goal orientations and self regulation in the college classroom. In M. L. Maehr and P. Pintrich (Eds.), *Advances in Motivation and Achievement: Goals and Self Regulatory Processes* (Vol. 7 pp. 371-402). Greenwich, CT: JAI Press.

Ofsted (2003) The National Literacy and Numeracy Strategies and the Primary Curriculum.

QCA (2003) *School Based Assessment for Learning: Research into practice*.

Rhodes, J. (1993) The use of solution focused brief therapy in schools, *Educational Psychology in Practice*, 9(1), 27-34

Robson, C. (2002) *Real World Research* (2nd ed.) (Oxford, Blackwell Publishing).

Rock, M. (2005). Use of strategic self-monitoring to enhance academic engagement, productivity, and accuracy of students with and without exceptionalities, *Journal of Positive Behaviour Interventions*, 7(3), 3-18.

Roeser, R. W., Midgley, C., and Urdan, T. C. (1996) Perceptions of the school psychological environment and early adolescents' psychological and behavioural functioning in school: the mediating role of goals and belonging, *Journal of Educational Psychology*, 88, 408-422.

Rosnow, R. L. and Rosenthal, R. (1996). Computing contrasts, effect size, and counternulls of other people's published data: general procedures for research consumers. In: Robson, C. (2002) *Real World Research* (2nd ed.) (Oxford, Blackwell Publishing).

Ryan, R. M. (1993). Agency and organization: Intrinsic motivation, autonomy, and the self in psychological development. In J. Jacobs (Ed.), *Nebraska symposium on motivation: Vol. 40. Developmental perspectives on motivation* (pp. 1–56). Lincoln, NE: University of Nebraska Press.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality*, 63, 397–427.

Ryan, R. M., and Connel, J. P. (1989). Percieved locus of causality and internalisation, *Journal of Personality and Social Psychology*, 57, 749-761.

Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.

Ryan, R., Gheen, M. H., and Midgley, C. (1998). Why do some students avoid asking for help? An examination of the interplay amongst students' academic efficacy, Teachers' social – emotional role, and the classroom goal structure, *Journal of Educational Psychology*, 90, 1-8.

Ryan, R. M., & Lynch, J. (1989). Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. *Child Development, 60*, 340–356.

Ryan, R. M., Sheldon, K. M., Kasser, T., & Deci, E. L. (1996). All goals are not created equal: An organismic perspective on the nature of goals and their regulation. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behaviour* (pp.7–26). New York: Guilford.

Seifert, T. K. (2004) Understanding student motivation, *Educational Research, 46*(2), 137-148.

Seligman, M. E. P. (1973) *Helplessness*. San Francisco: Freeman.

Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5–14.

Skinner, E. A., and Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behaviour and student engagement across the school year. *Journal of Educational Psychology, 85*, 571–581.

Smith, M., Duda, J., Allen, J., and hall, H. (2002) Contemporary measures of approach and avoidance goal orientations: Similarities and differences, *British Journal of Educational Psychology, 72*, 155–190.

Spavold, Z. (2005). Using formative assessment to raise pupil motivation: a small classroom based study, *School Science Review*, 86(317), 119-123.

St James-Roberts, I. and Samlal Singh, C (2001) *Can Mentors Help Primary School Children With Behaviour Problems? Final Report of the three-year evaluation of Project CHANCE carried out by the Thomas Coram Research Unit*. Institute of Education, University of London. Home Office Research Study 233).

Stevenson, S. (2003). *So You Want to Consult with Children? A Toolkit of Good Practice*. London: International Save the Children Alliance.

Suchman, E. A. (1967). Evaluative research: principles in public service and action programmes. In: C. Robson, (2002) *Real World Research* (2nd ed.) Oxford: Blackwell Publishing.

Timmin, P., Bham, M., McFadyen, J., and Ward, J. (2006). Teachers and consultation: applying the research and development in organisations (RADIO), *Educational Psychology in Practice*, 22(4), 305-319.

Timmins, P., Shepherd, D., and Kelly, T. (2003). The research and development in organisations approach and the evaluation of a mainstream behaviour support initiative, *Educational Psychology in Practice*, 19(3), 229-242.

Torrance, H. (2001). Assessment for learning: Developing formative assessment in the classroom, *Education 3-13*, 29(3) 26-32.

Turner, J. C., Meyer, D. K., Anderman, E. M., Midgley, C., Gheen, M., Kang, Y., and Patrick, H. (2002). The classroom environment and students' reports of avoidance strategies in mathematics: a multi-method study, *Journal of Educational Psychology*, 94,(1), 88-106..

UNICEF. (1989). *Universal declaration of the rights of the child*. Article 12, ratified by the UK in 1991. New York: UNICEF.

Usher, R. (1996) A critique of the neglected epistemological assumptions of educational research, In: Scott, D., & Usher, R (1996) *Understanding Educational Research*. London: Routledge.

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senechal, C., & Vallieres, E. F. (1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52, 1003–1019.

Vallerand, R. J., & Reid, G. (1984). On the causal effects of perceived competence on intrinsic motivation: A test of cognitive evaluation theory. *Journal of Sport Psychology*, 6, 94–102.

Wikin, B. R., and Altschuld, J. W. (1995). *Planning and Conduction Needs Assessment: A Practical Guide*. California: Sage.

Woolfson, R. C., Harker, M., Lowe, D., Shields, M., Banks, M., Campbell, L., and Ferguson, E. (2006). Consulting About Consulting: Young people's views of consultation, *Educational Psychology in Practice*, 22(4), 337–353.

Wragg, E. C. (2001) *Assessment and learning in Primary School*.
RoutledgeFalmer: London.

Professional Practice Report 2

**Systems-wide implementation of The Picture
Exchange Communication System: working with
schools, children and their families**

**Postgraduate Professional Training Programme in Educational
Psychology: University of Birmingham**

Introduction

The following case study provides an account of a my involvement as a Trainee Educational Psychologist (TEP) in devising an augmented communication intervention for a 5 year old boy with a diagnosis of autistic spectrum disorder (ASD). In this instance the intervention was to be delivered by Specialist Support Services (SSS) and the boy's parents in both the school and home environments respectively. At the time of my involvement the boy attended a specialist speech and language unit attached to a mainstream infant school in Birmingham.

Following a case study outline, this paper is presented in two broad sections, each section comprising smaller sub-sections. I begin Section One by providing the reader with some contextual information in relation to how this piece of case work was negotiated within my Year 2 supervised professional practice. A rationale for targeting improved communication development for children with sensory processing difficulties then follows. This is followed by a more detailed rationale for the specific teaching methodology chosen in this case study, namely, Bronby and Frost's (1998) Picture Exchange Communication System (PECS). Finally, Section One concludes with evidence attesting to the evidence of PECS, set within the theoretical context of sensory integration theories, and the overall aims of my negotiated role as a Trainee Educational Psychologist (TEP).

Section Two focuses on the consultation carried out with school staff and parents in relation to presenting the rationale for a systems-wide implementation of PECS. This discussion draws attention to some of the epistemological, moral and ethical dilemmas that educational psychologists potentially face in their everyday practice when working with children and their families. Tensions between directive and non-directive models of service delivery are discussed within the context of Bronfenbrenner's (1979) ecological systems framework.

Case Study Outline

Sabraam is 5 years old and lives at home with his parents and his older brother and sister who are 12 and 9 years respectively. He has a diagnosis of autistic spectrum disorder (ASD) as does his brother. Sabraam's sister also has special educational needs and as with her two brothers, her language skills are very limited. She also has physical disabilities and is partially sighted. The two older children attend special schools. Sabraam's specialist Speech and Language Unit is attached to a mainstream infant school.

Sabraam attended nursery part time from the age of 18 months. Staff at the nursery identified social interaction, speech and language and uncooperative behaviour as areas of concern. Soon after Sabraam commenced the day nursery, his mother formed the opinion that he wasn't coping with the environment and she withdrew him.

As Sabraam transferred to mainstream primary at the age of 4 years he was given a statement of special educational needs. However, the school he initially attended formed the view that they were unable to provide adequate resources for Sabraam and as a result he then transferred to the Primary Specialist Speech and Language Unit which he now attends full-time.

The 'TEP context'

In order to provide the reader with a fuller understanding of how this piece of work was carried out it is important to provide some insight with regard to the professional context of the educational psychologist (EP) and particularly, that of the TEP.

Professional guidelines for EPs direct them to focus primarily on the rights of the child (DECP, 2002). However, practice is set within a context of government policy and related initiatives. With all children's welfare practitioners are advised to work with reference to an ecological systems framework (Bronfenbrenner, 1979) in terms of providing a duty of care to children (DfES, 2003). For EPs this typically involves working with parents and families as well as the schools.

Specifically in relation to education, the Code of Practice (DfES, 2001) stipulates that parents of children with special educational needs (SEN)

should be viewed as equal partners in deciding what and how SEN provision is delivered. Here, at least potentially, a conflict of interest can arise between parties. In this cases study they did.

My involvement as the visiting TEP

Initial consultations at the outset of the case study were held between the school SENCo and my supervising EP with regard to the type of intervention that would take place. It was agreed by these two parties that I as an Trainee Educational Psychologist (TEP) would review the appropriateness of a communicative intervention and reintroduce the notion of implementing an augmented system within the home environment. This would be achieved through consultation with parents, with an acute focus on developing parental ownership in relation to intervention delivery.

However, the request for the involvement of the Educational Psychology Service (EPS), and specifically the notion of promoting a school-home intervention came via the SENCo only. At the outset of this case study the child's parents did not seek to use an augmented communication system within their home environment. Moreover, staff at the school had a history of failed attempts in trying to encourage the family to use such a system within their home. This raised ethical dilemmas for me as a practitioner, generating concerns in the nature of "who is the client? In whose interest

is the work being done? And, to what end?” Discussions presented throughout this paper are considered against this ‘ethical backdrop’.

Though my focus did remain primarily on Sabraam’s needs, these tensions posed problems for me as a TEP throughout this case study and chiefly so due to notions of ‘accountability’. Recent government directives such as the Every Child Matters agenda (DfES, 2003) stipulate that those working with children must be accountable for their professional practice: in short that outcomes need to be demonstrable. Whilst parents’ views are sought in evaluating EP Services (Squires et al. 2007), school evaluations are a significant factor in shaping how EP’s deliver their services (Farrel et al. 2006).

Section One

Theoretical conceptualisations of autism

Autism is the core disorder of the pervasive developmental disorders (ICD-10; DSM IV). It is seen as comprising of dimensions, and is generally understood in terms of a spectrum of disorders rather than as a unitary disorder (McConachie and Diggle, 2006). Impairments in imagination, social interaction, and communication, comprise the diagnostic criteria for autistic spectrum disorders (ASD) (ICD-10; DSM IV; Wing, 1996, 2001). Various theoretical frameworks can be referred to as a means of

conceptualising the disorder. The two outlined below are the two that appear most prominently within and across the ASD literature.

Cognitive psychologists have used the term 'theory of mind' to describe children's understanding of other people's desires, emotional states and intentions (Whitten, 1991). From this premise it is posited that children possess two types of mental representation, namely 'primary representations' of things and people as they are really in the world, and 'meta-representations' which are then formed and used to structure pretence and understanding that other people have minds like their own (Lesley, 1987).

Autistic children are hypothesised as having a specific impairment in forming meta-representations which thus renders them unable to understand others' mental states (Frith, 1991; Hays, Tager-Flusberg, 2005). With this emphasis, impaired / delayed development of theory of mind is often utilised as a means of explaining the communicative and social functioning elements of ASD (Baron-Cohen, 1988). Impairments in social functioning have been shown at all developmental stages across the spectrum (see Lord and Paul, 1997).

Central coherence theory proposes that people with autism have a weaker drive for integrating information, processing information locally rather than globally (Frith, 1989; Happe, 1999). To varying degrees, these sensory processing difficulties result in a lack of understanding with regard to

higher level meaning, conceptualisation and an awareness of context. Fragmented sense making can be seen as having major implications in relation to the understanding of both verbal and non verbal forms of communication (Neons and Van Berckelaer-Onnes, 2004). By definition, all individuals with ASD show deficits in communication (DSM IV criteria: American Psychiatric Association, 1994).

The rationale for targeting communication development:

Sabraam's parents had gone to great lengths to find an appropriate primary school setting for Sabraam and they wanted him to remain in mainstream education for as long as possible. In negotiating my own role, the school were of the opinion that Sabraam had an increased chance of remaining in a mainstream setting (with a specialist unit attached) if his communication skills were extended, particularly within the context of group work and the development of healthy peer relationships.

Research converges in indicating the prognostic value of developing early communication in relation to educational outcomes for children with ASD (Howlin, et al., 2000; Lord and Venter, 1992; Lotter, 1978; Nordin and Gilberg, 1998). Wetherby *et al.* (2000) recommend that communication interventions should be a major focus for children diagnosed with ASD.

If one conceptualises ASD within the confines of the theoretical perspectives of theory of mind and sensory integration theory, the global

benefits that language and communication interventions potentially bring can be seen as sizable and far reaching. For example, direct and explicit communication with peers could be seen as productive in facilitating both the development of meta-representational properties for Sabraam, and a greater awareness of his immediate social context.

The next section of this paper gives a brief account of capacity building processes within a theoretical context of ASD and provides a detailed rationale for the specific teaching methodology utilised in this case study.

Capacity building through communication development: enhancing theory of mind/central processing properties through an incidental teaching approach

Where language and communication improve, there is a contingent improvement in interpersonal and social skills (Sigafoos, 2000).

Nonetheless, a key question to pose when devising communication interventions specifically for children with SEN, is to what end? In other words, what are the specific purposes of the intervention?

Discrete trial-teaching (DTT) is a method of language instruction incorporating drill-method. Communication skills are task analysed into component parts and taught within a highly structured format. It is claimed that all DTT in relation to receptive, expressive and social communication skills focus solely on the functional aspects of communication (Lovaas,

1981). DTT has been shown to be highly effective in developing communication skills in both mainstream and non mainstream settings. Goldstein (2002) provides a comprehensive overview of the efficacy of DTT interventions.

However, one of the major criticisms of DTT relates to generalisation, or often the lack of it (Goldstein, 2002). Working with autistic children, McGee Krantz and Mc Clannahan (1985) found generalisation from the training environment to occur less frequently with DTT than with other teaching methods. Greater generalisation has been shown in studies that have incorporated multiple training sites (e.g. Handleman, 1979) although these effects were demonstrated with very small sample sizes only (Goldstein, 2002).

It might be postulated that shortfalls in generalisation result from DTT's 'hard-line' behaviourist orientation. Whilst DTT as a method is all encompassing in that it incorporates elements of communication, it does, by nature, focus more intently on the *form* aspects of communication rather than the *semantic*.

Incidental teaching methods (ITM) or natural language interventions as they are sometimes referred to (Carr and Felce, 2006), arguably have the capacity more readily to accommodate the semantic aspects of communication development (Goldstein, 2002). The chief difference between incidental methods and DTT is that with ITM teaching initiates

when a child indicates an interest in an item or activity. Thus, with ITM, teaching occurs irrespective of context (Preis, 2007).

Incidental approaches do operate via behaviourist principles, at least in terms of delivery, and reinforcement is a key and very salient component of the method (Delprato, 2001). However, with the focus on self directed/initiated communication, arguably there is a greater propensity for the incidental teaching to facilitate development in a more global sense, and not in relation to functional and behaviourist aspects of communication only.

It is not being said here that DTT does not facilitate communicative and global development. Rather, what is being reasoned is that to address Sabraam's identified areas of impairment (Wing, 1996; 2001), and specifically to maximise generalisation, incidental teaching affords the intervention of choice in this instance, particularly within the context of sensory fragmentation. Preis (2002) has noted the importance of matching the goals of intervention and chosen methodology with the specific needs of the child.

The next section of this paper offers an account of some of the finer aspects of ASD in relation to the notion of cognitive and affective capacity building. A detailed rationale for the specific type of communication methodology selected in order to help Sabraam remain in mainstream education is also provided.

Rationale for the use of PECS

The capacity for communicative intent is a fundamental impairment for many children with ASD. Communicative intent can be seen as comprising two aspects of communicative functioning, protoimperative, or requesting behaviour and protodeclarative, commenting behaviour (Warren and Yoder, 1998).

In terms of normal child development, typically children begin to understand by 9 months of age that their signals influence others. By approximately 13 months of age an understanding emerges that signs are separate from referents and that symbols can be used not only as a means of requesting, but also commenting (Warren and Yoder, 1998). Thus, initially, symbols are functional in terms of reward by association only. Latterly, symbols facilitate the development of other more complex forms of shared meaning.

Children with autism have difficulties in understanding meaning and symbols, in part, as a result of their limited capacity to integrate sensory input. A means of improving communicative functioning in autistic children is to facilitate integrative or more holistic processing through helping them to establish associations within their environment (Carr and Felce, 2007). Where an effective instructional/mediation mechanism is introduced, this in turn allows the child to develop communicative intentionality, at least initially in relation to protoimperative, or requesting forms of

communicative functioning. In theory, this allows for initial skill development at the basic communicative level such as requesting, but subsequently, and potentially, this process also facilitates the development of more complex communicative forms such as commenting behaviour and social discourse (Bondy and Frost, 1994).

The Picture Exchange Communication System (PECS) aims to teach spontaneous communication skills within a social context through the use of pictures and symbols. The system, initially developed Bondy and Frost (1994) for children with ASD who have minimal or no communication skills, employs applied behaviour analytic procedures such as task analysis, prompting, fading and chaining. Principally, the system is derived from comparative work with apes. Early work by Premack (1970; 1976) demonstrated that with rigorous, thorough and systematic teaching, chimpanzees could acquire communicative behaviours that had all the characteristics of proper language.

Rather than adopt a massed trial format, the PECS processes are rooted within the context of everyday activities and events that best motivate the child to communicate (Halle, 1984). This natural teaching environment promotes not only spontaneous initiation, but also greater levels of generalisation (Stokes and Baer, 1978). Bondy and Frost (1994 p.3) define the central mechanism of their Picture Exchange Communication System as:

“Children using PECS are taught to approach and give a picture of a desired item to a communicative partner in exchange for that item. By doing so, the child initiates a communicative act for a concrete item within a social context”.

With the picture exchange system, following a baseline assessment, teaching takes place over a series of six graduated phases, each with its own specific learning goal. Table 1 provides a brief summary of the strategies and targets for each stage (adapted from Magiati and Howlin, 2003). Phases range from learning to exchange a single picture to make a request, to forming sentences, asking questions and commenting.

Table 1 The six phases of PECS: teaching aims and examples (adapted from Magiati and Howlin, 2003)

Phase	Teaching Target	Brief Description
1.	Requesting through picture exchange.	Two teachers necessary; one picture placed on the table; the child would reach for the object; physical prompting from teacher to exchange a picture for the item; first teacher gives desired item; non verbal prompting; gradual fading of physical prompt until exchange independent.
2.	‘Travelling’ and increasing spontaneity; requesting through picture exchange from a distance (in different environments with different people).	Increase distance between child, picture and adult; use a number of different trainers in different situations; still one picture.
3.	Discriminating between different pictures from which the requests will be made.	Trainers gradually increase the number of pictures; the child has to chose the relevant symbol and exchange it.
4.	Requesting with a phrase “I want.....”	Use a sentence strip and sentence structure; “I want” symbol followed by the symbol with the child’s requested item.
5.	Answering the question	Teaching the child to respond to certain

	"What do you want?" with a request.	verbal prompts and questions.
6.	Commenting in response to a question.	Teaching the child to respond to "What do you have / see or hear?" question using relevant symbols; labelling and naming items; discriminating between these and "What do you want?" questions.

In theory, this graduated approach encourages greater and more sophisticated levels of social interaction, which itself, and within the context of sensory fragmentation, simultaneously draws, or nudges together, the child's incoming sensory data. It is argued that this 'system spawned' increased drive for central coherence therefore serves to generate greater levels of meaning and understanding of context for the child. To couch this in different terms, what the system does is facilitate capacity building in such a way as to build for the child, potentially at least, 'a theory of mind'.

The final part of Section One of this paper evaluates the evidence base for the Picture Exchange Communication System and attempts to substantiate this notion of capacity building.

Efficacy of the PECS

Published evidence for the efficacy of PECS in developing communicative functioning in children with ASD is limited. Bronby and Frost (1998) provide retrospective accounts of 66 non communicative children with ASD aged 5 years and under. Over 95% of the sample was reported to be using at least 2 pictures within 1 month of the programme's initiation.

Whilst no cognitive assessments were carried out, after 1 year of PECS 59 % were able to use some basic speech without pictures. 20% of the sample used a combination of pictures or symbols, and speech, and 7% of the sample sustained picture use only.

Schwartz et al. (1998) sampled 31 preschoolers. Half were diagnosed with ASD or a pervasive developmental disorder not otherwise specified (PDD-NOS) and the rest as having more generic developmental disabilities. All children had severe social, communication and cognitive delays. At 14 months all of the children were able to communicate spontaneously using the PECS. Of the eighteen assessed at 1 year follow up, eight were classified as talkers (more than 5 words) and ten as non talkers. However, as with Bronby and Frost's (1998) study, heterogeneity of sample was an issue. Outcomes for individual children were hugely variable in this study. It also remains unclear how these findings apply specifically to children with ASD.

Webb (2000) addressed these criticisms to some degree in her study, albeit with a sample of only six children aged between four to five years of age, five of whom had a diagnosis of ASD. In all six, spontaneous communication was minimal. After 6 months all of the children were using between 112 and 160 of the systems pictures and there was an increase in spoken vocabulary from a baseline average of 10 to 68 words at follow up.

Similarly, Magiati and Howlin (2003) focus more specifically on ASD in a larger sample of 32. Following teacher training in the delivery of PECS, the sample, comprising of a mean age of 7.8 years, was shown to have improved in their use of PECS vocabulary and its frequency of use over time.

Nevertheless, whilst the evidence base for PECS might be seen converging and fairly encouraging it remains limited given that experimental controls were not employed in any of the aforementioned studies. Charlop - Christie et al. (2002) address this limitation through incorporating randomised controlled trials. In their research they present positive findings in relation to the efficacy of the communication system. However, this study utilised a sample of three only and thus generalisation of findings has limited validity.

A more recent study deals with this limitation. Carr and Felce (2007) sampled over fifty children aged between 3 and 7 years who were attending specialist units for autism. After 5 weeks of teaching PECS the intervention group comprising twenty four children showed significant increases in communicative initiations and dyadic interactions with staff compared to the controls.

Whilst PECS as a methodology might now be considered sound based on evidence presented, the rationale for the proposed teaching methodology to be used in this case study, in line with the research aims, was to

promote capacity building in a more global sense, such as in relation to central coherence or/and theory of mind, as well as improving functional communication.

Based on their findings, Carr and Felce (2007) do support the notion that PECS does facilitate communication development, and also posit that the system facilitates increased adult 'responsivity' to child initiated communication, which consequently facilitates a reciprocal effect in terms of promoting further child initiated communication. However, whilst this research does show increased child initiated communication in both quantitative and qualitative forms for children on the autistic spectrum through the use of the picture exchange system, it might still be argued that it does not definitively identify capacity building processes in themselves.

Though claiming that the PECS increases sensory integrative properties may be considered suspect, at least based solely on this research, there are numerous studies that show strong positive correlations between levels of vocabulary and grammar and theory of mind performance (Happe, 1995; Sparrevohn and Howie, 1995; Tager-Flusberg, 2000). Nevertheless, these studies do not illustrate developmental trajectories and, other research designs utilising Perner, Leekam and Wimmer's (1983) theory of mind (TOM) measures have found no significant changes over time in performance in children with ASD (Holroyd and Baron-Cohen, 1993; Ozonoff and McEvoy, 1994).

However, Steele et al. (2003) criticise these studies maintaining that measures used were not sufficiently developmentally sensitive. Older children were also sampled in these studies and were small in number. In their research Steele et al. (2003) used a sample of 57 children ranging from 4 to 14 years of age and utilised developmentally sequenced TOM batteries differentiated at early, basic and advanced levels. Testing each child on visits spaced 1 year apart they correlated TOM performance with language development and IQ. Paired sample t-tests showed significant increases in TOM scores ($p < .001$). Expressive vocabulary scores ($p < .001$) and correlation coefficients for TOM and expressive language at time 1 and time 2 were .854* and .868* respectively. Steele et al. (2003) report TOM performance to have increased for 70% of the sample and attribute this increase as primarily related to language development.

Yet studies within this research domain remain few in number particularly for studies with robust sample size experimental controls. Moreover, those illustrating significant development of TOM are scarce, as outlined. Given the abstract nature of TOM or/and central coherence concepts, a critical eye might cast doubts over the credibility/reliability of the conclusion drawn by these authors in relation to communicative development promoting other cognitive skills such as TOM and central coherence in children with a diagnosis of ASD.

In an attempt to satisfy my own conscience as an evidence-based practitioner I looked to the medical field for additional evidence. Though I was unable to find any biologically grounded research relating to directly to the PECS, I was able to make comparisons with Jean Ayres' (1972) original premise in terms the mediation of sensory integration: namely, that interaction with the environment shapes brain development, that the neural systems have the capacity for change and, that meaningful sensory motor interaction within the environment is an effective producer of structural, molecular and cellular developments.

Whilst other research supports this position (e.g. Kandel and Jessel, 1995; Kempermann and Gage, 1999), there is, as yet, as I have indicated, no demonstrable neurologically evidence that incidental methods as they relate to the teaching of communication, facilitate or produce such plasticity. Nevertheless, increased communicative functioning does enhance meaningful sensory motor activity within the environment (e.g. see Lenore, 1998) and with that, based on Ayers's principle, the neurological evidence base in relation to the motor activity might be extrapolated and logically applied to processes associated with ITM and enhancing communicative development.

I was now satisfied that PECS was more than simply a behaviourist mechanism of learning that facilitated the development of language in its most basic sense (Sigafoos, 2005). PECS is a system that potentially capacitates an autistic child at other levels of functioning, including more

meaningful social interaction with parents, siblings, adults and peers, and in a more holistic way with their environment in general.

Comfortable now with the fact that the recommended method of intervention was specifically targeted in terms of meeting the needs of the child, I now felt less compromised as a practitioner with regard to entering into consultation with Sabraam's parents, and in recommending the notion of allocating adequate family resource as a means of developing Sabraam's communication skills.

I now turn to Section Two of this paper, which focuses on the processes undertaken during the consultation period with Sabraam's parents and the school.

Section Two

The school's relationship with Sabraam's parents immediately prior to my initial consultation to promote PECS

Parents are now seen as vital partners in a child's education (DfES, 2004a), and specifically in relation to special educational needs (SEN), the revised Code of Practice (2001) endorses the role of school / parent partnerships. The Code of Practice (2001) states:

"The relationship between parents of children with special educational needs and the school which their child is attending has a crucial bearing on the children's

educational progress and the effectiveness of any school based action (DfES, 2001 p. 12).

In Sabraam's case, relations between the school and Sabraam's father, Mr R, who up until the point of my involvement had been the sole family representative, had virtually broken down. The school SENCo and Sabraam's class teacher had attended numerous meetings with Mr R, which were described by the SENCo as 'pointless'. One of the key areas identified by the SENCo with regard to these poor relations was Mr R's apparent unwillingness to acknowledge Sabraam's level of need. Indeed I was advised by the SENCo and class teacher that under no circumstances should I refer to Sabraam's educational needs within the context of ASD, as previously this had infuriated Mr R. At this point I began to look more closely at the literature in relation to parent school consultation and SEN in order that I might facilitate a more positive 'first meeting'.

Errors when consulting with parents of children with SEN: the evidence

Duncan (2003) carried out a series of semi-structured interviews exploring the experiences of families who had undergone recent conflict with SEN professionals. Ten families were sampled across two Local Authorities in the Midlands. All of the families spoke English as their first language and all of their children with SEN were male. Provision that the children were accessing ranged from nursery to secondary school. The boys had a wide range of need, including ASD, Attention-deficit hyperactivity disorder,

dyslexia, hearing impairment and speech and language difficulties. None of the families is described by Duncan (2003) as affluent.

A number of common experiences emerged from the interviews, though generally the most notable of these related to parents simply 'not being heard'. Parents were most aggrieved at the attitudes and behaviours of those who worked directly with their child, namely school personnel. 'Ignored' and 'patronised' were frequent themes that emerged in this respect.

Too much focus on academic attainment rather than the 'whole child' was also a criticism made of the school representatives in Duncan's study (2003). Knill and Humphreys (1996) draw attention to the impact that a 'market force approach' to education potentially has on the values and aspirations of parents of children with SEN. Research by Jones and Swain (2001) examining parental views of Individual Education Plan and Annual Review meetings supports this notion. A direct quote from a parent from Jones and Swain's (2001) study illustrates this point:

'Education is not the three "R's". To educate our children you have to educate the whole child. It's their health needs, it's their social needs and it's their education, the whole child has to be seen to.'

(Jones and Swain, 2001 p. 61)

Procrastination by professionals was a further recurring complaint in Duncan's study (2003). Whilst parents maintained that they were able to

appreciate that SEN staff were busy, they felt that their work approach was 'leisurely'. Moreover, parents felt that they were unable to broach this issue with professionals for fear of a 'backlash'. Work carried out by Ley (1982) in the field of clinical psychology supports this finding, suggesting that parents often comply rather than disrupt professional opinion in order to avoid being seen as difficult.

Parents in Duncan's study (2003) also felt confused when presented with funding constraints in relation to SEN, and felt frustrated at the number of professionals that they had to deal with, in what was frequently described as 'too many meetings'.

Whilst Duncan (2003) accesses a diverse and good sized sample, and carries out a lengthy and detailed interview process, i.e. more than 12 open-ended questions for each parent resulting in a considerable volume of data, there are a number of methodological limitations of this study that should be considered.

The interview data were themed by one researcher only. The data presented by Duncan (2003) thus has the potential to be influenced by researcher bias (Lincoln and Guba, 1985). Even if Duncan (2003) were able consciously to 'bracket out' his own research agenda from the interview and analysis process, as Heidegger suggests (Nagel, 1998), each researcher brings to the table their own experiences, specific understandings and historical background. At no point during his research

paper does Duncan (2003) present a reflexive account of the research process. The validity of Duncan's findings (2003) might have been enhanced had inter-rater data analysis processes been employed. Robson (2002) suggests a minimum of two researchers with regard to coding qualitative data.

In another study, Paradise and Adewusi (2002) conducted a number of focus groups examining the views of parents whose children had speech, language and communication difficulties, and who were attending either mainstream or special school across Key Stages 1 to 4. Parents were selected for the groups based on identification through their Local Authorities, that they were already experiencing difficulties with regard to SEN provision. The study aimed broadly to ascertain parents' views of quality of SEN provision

Fifty one parents attended seven focus groups across England. Diverse ethnic groups were represented, in one focus group only. The other six focus groups comprised a white British sample only. The majority of the children were represented by their mother, although three of the children were represented by both parents.

A key finding to emerge from this study was that parents did not feel that they were included as 'partners' in their children's educational provision. One of the reasons cited for this was infrequency of school contact. Whilst these findings are inconsistent with those of Duncan's (2003), where too

much school contact was seen as problematic by parents, an additional factor identified in Paradice and Adewusi (2002) study was lack of 'parental voice' during consultation. Duncan's study (2003) does support this finding, and this would suggest that whilst either frequency or infrequency of school contact can be a factor leading to parental dissatisfaction with regard to SEN provision, it is the quality of interaction during consultation that is the chief mediator in this regard. Numerous other studies converge to support this notion (Beverage, 1997; Carpenter, 1997; Jones and Swain, 2001; Ley, 1982; see also Cunningham and Davis, 1985).

In Paradice and Adewusi's (2002) study, SEN professionals were also reported as having a lack of empathy and understanding with regard to the needs of parents with children who had SEN. Frequently, parents maintained that it was they who 'lived the experience' coping with SEN on a daily basis with their children, and that despite their considerable knowledge of their child's disability, few were treated as 'experts' by SEN professionals. This idea that professionals working with SEN fail to listen to parents is supported by other research findings (Beverage, 1997; Duncan, 2003; Jones and Swain, 2001 and Smith, 1997).

Wolfendale, for example, (2000) notes:

"Parents should be in the planning and delivery of services.....parents are the informed experts on their children (Wolfendale, 2000, p. 149).

Similarly Cunningham and Davis (1985) suggest:

“Parents are experts too. Help should begin with an understanding of what they believe, expect and need (Cunningham and Davis, 1985, p. 1).

The study by Paradice and Adewusi (2002) is methodologically robust. Audio taped data derived from the focus groups were independently themed by two researchers, and results compared to ensure consistency of interpretation (Robson, 2002). These data were then presented back to each corresponding focus group as a means of further validating the derived themes. Parents also completed questionnaires which corresponded with the group data, though Paradice and Adewusi (2002) fail to report the specific questionnaire format used in their study.

The sample might be seen as representative of SEN, in that these were families whose children attended both mainstream and special school. Furthermore on that point, all Key Stages (1-4) were represented within the focus groups. Wider representation in terms of ethnicity and gender might have allowed for greater generalisations of the findings.

Conclusions following this brief literature review and implications for my own professional framework for parent – school consultation

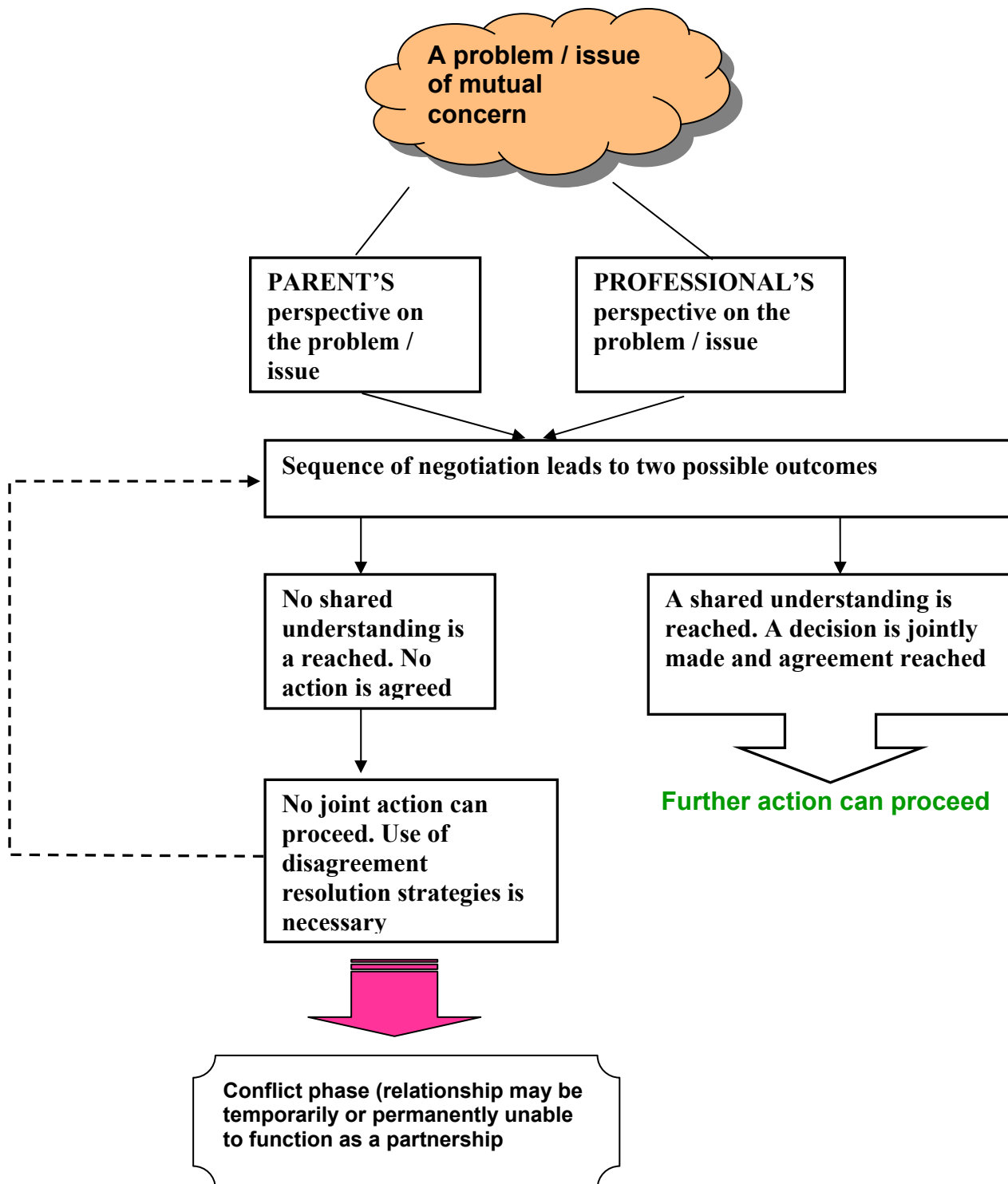
Whilst Duncan (2003), Paradice and Adewusi (2002), and other the related studies showed a number of interesting findings I needed to be careful at this stage of my involvement not to assume that these findings would be applicable in Sabraam’s case. Carpenter (2000) warns of the dangers in

professionals' stereotyping families with children with SEN, suggesting this can often lead to families' needs not being met.

Nonetheless, I was confident in extrapolating one general finding from the literature to Sabraam's case study, namely, that when dealing with professionals, parents of children with SEN often feel unheard. Certainly, from my initial consultations with the SENCo and Sabraam's Class Teacher, I had not been given the impression that the school - parent relationship was a 'true partnership'. Drawing this conclusion from both the literature and the case study evidence, I was now able to formulate an apriori approach to consultation with Sabraam's parents and the school.

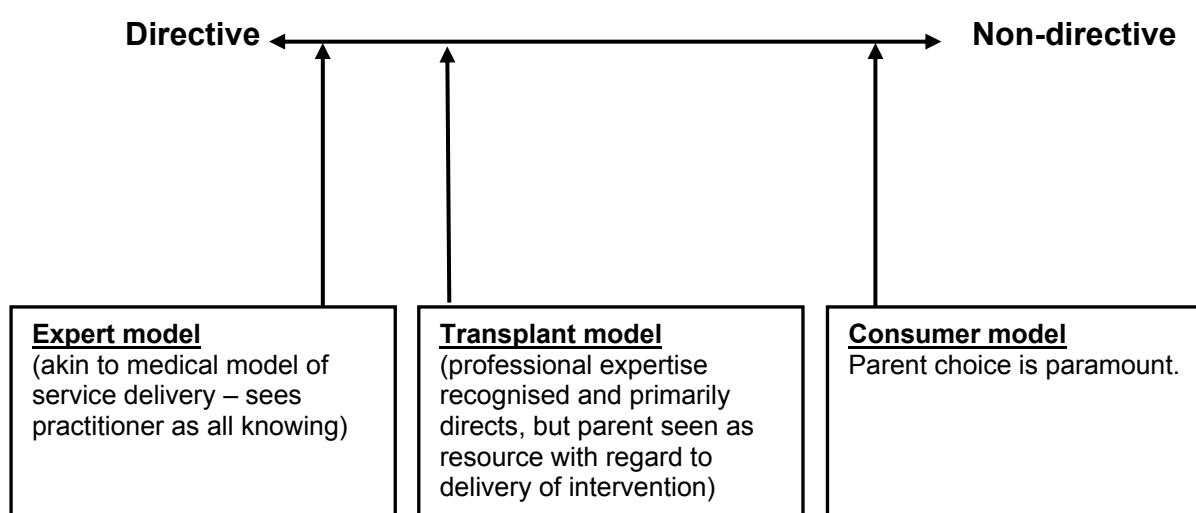
Dale (1996) developed what is referred to as the 'negotiation model' of parent – professional consultation (see Figure 2). The model aims to help practitioners avoid discriminating against parents' rights to be involved and consulted, and to advance through negotiated decision-making with parents to a point where all parties are happy with the proposed outcome. Negotiation, joint decision making, resolution of differences are key features of the 'negotiation model' (Dale, 1996 p. 16). Figure 2 illustrates the model's content and process structure.

Figure 2: the 'Negotiation Model' (developed from Dale, 1996)



Dale's (1996) 'negotiation model' evolved from previous parent consultation frameworks such as the 'expert', 'transplant' and 'consumer' models of service delivery proposed by Cunningham and Davis (1985). For illustrative purposes Figure 3 below depicts these earlier models along a directive – non-directive continuum with regard to approaches to consultation.

Figure 3: Parent consultation frameworks (Cunningham and Davis, 1985)



Dale's (1996) negotiation model sees a clear move away from the earlier more directive 'expert' and 'transplant models'. Criticisms of these directive approaches are well documented in the literature (see Dale, 1996 pp. 22-25 and Cunningham and Davis, 1985 pp. 12-14).

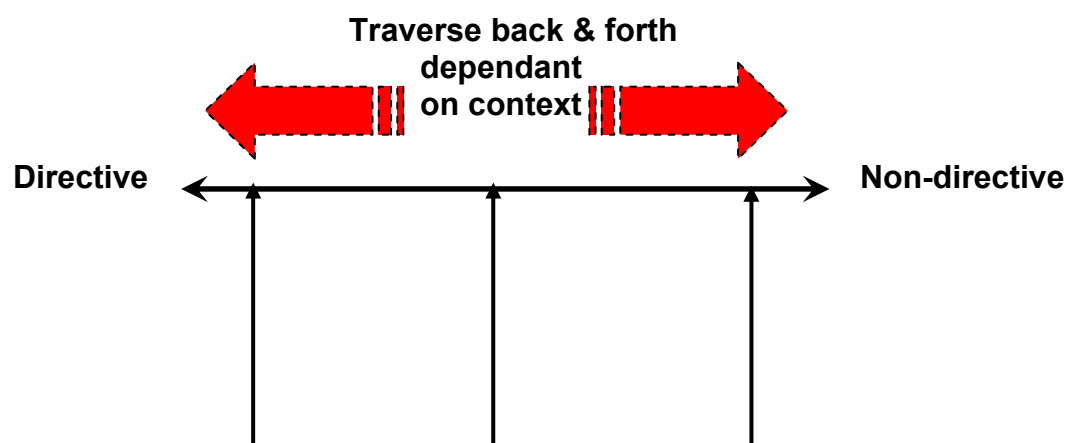
The negotiation model also differentiates itself from the more non-directive approach of the consumer model. Two key and related criticisms of the consumer approach relate to the notion that the professional is there only

to facilitate the parent in accurately assessing and representing their child's needs. Here difficulties lie in that firstly, the consumer model assumes that parents have the resources to make the 'right choices' for their child, and parallels can be drawn here with criticisms made of person-centred approaches to counselling (McLeod, 2002). In short, that no matter how much facilitation occurs, often clients / parents may simply not have or develop the skills required to make the 'right choice'. Secondly, whilst 'total parent power' might sound idyllic, at least from an empowerment perspective, professionals are duty bound and have a responsibility to incorporate their own viewpoints into final decision making on behalf of a child where they see fit (DfES, 2001). Thus professionals may be vulnerable when using the 'consumer approach' to parent consultation, and this is seen as one of the major flaws of the consumer model framework (Carpenter, 2003).

A central tenet of the negotiation model (Dale, 1996) lies in its orientation towards multi-level analysis. The negotiation model proposes that partnership relationships need to be understood within the wider social context of family and community networks, and related organisational structures that would potentially influence consultation, such as the school context. In essence, this draws the practitioner towards a more ecologically defined framework, which is consistent with current national and local policy initiatives (DfES, 2004a).

Power, and the potential struggles that in part may be manifest within consultation as a result of these wider systems influences, is afforded a keen focus by the negotiation model and with this 'practitioner flexibility' becomes a fundamental requirement of the model. Thus, with Dale's (1996) 'negotiated approach' consultation becomes more of a traverse back and forth along the directive – non-directive continuum dependent on existing and developing practitioner – parent relationship (see Figure 4).

Figure 4: 'Traversing' parent consultation frameworks



Dale's (1996) 'negotiation model' was used as a framework for consultation in this case study, and the final part of this report presents an account of this consultation. Before presenting this however, it is important to give an overview of some of the ethical concerns that arose during this case study, which have already been alluded to in the previous section of this report.

Ethical considerations

The Human Rights Act (1998) directs that all children have an 'overriding right' to have a good education and to have their educational needs met (Farrel, 2000 p. 154). More specifically the Education Act 1996 asserts the statutory duty of Local Authorities to provide educational resources for all children between the ages of five and 16 years. Recent government initiatives emphasise that in accordance with the Education Act 1996, parents and children have a choice with regard to the type of provision that they receive. In relation to SEN, recently revised directives, such as SENDA (2001), support this notion of the parent as the 'consumer'.

In this case study, Sabraam's parents were happy for the school to use PECS (Brondby and Frost, 1994) as an 'in-house' SEN resource. As noted previously, school staff and I, after reviewing the evidence base for PECS and after carrying out assessment of Sabraam's current levels of need, also believed that PECS needed to be generalised into the home setting if possible as a means of optimising positive outcomes for Sabraam. The Every Child Matters agenda (DfES, 2004a) and other related SEN directives (DfES, 2001; 2004) emphasise the need for schools and other community practitioners to work 'systems-wide' in order to provide good quality education, though currently there is no statutory obligation on parents to implement recommendations made by schools / Children's Services, unless there are specific Child Protection concerns that have been identified (Education Act, 1996).

However, previous consultation meetings between the school and Sabraam's father revealed that Sabraam's parents were not happy for PECS to be transported into their home setting and Sabraam's father had disagreed fundamentally with the school on this matter. Thus even at a basic level, there were tensions between what the school and what the parent wanted. Wedell (2008) draws attention to these parent, school, and external practitioner tensions in a recent article relating to parent consultations in primary schools.

The Division of Educational and Child Psychology professional practice guidelines (DECP, 2002) suggest that children's views should be sought by practising psychologists. Children who are capable of forming views, have a right to receive and make known information, to express an opinion, and have that opinion taken into account in any matters affecting them (DfES, 2001). The principle of autonomy (DECP, 2002) suggests that this right should coincide with maturity and the capacity to understand the consequences of those preferences made. However, in Sabraam's case he was not able to express a mature view with regard his SEN.

As a practitioner I had three potentially conflicting concerns to manage within the context of the parent – school consultation:

- to represent the rights of the child;

- to support the parents in making an informed decision with regard to the type of provision that they required, independent of any pressures from the school; and
- to be mindful that schools have a duty to provide good quality education and to work with parents/families and other community members in order to achieve that where this is appropriate.

The next section of this report provides an account of the strategies that were used during consultation with the school staff and Sabraam's parents. As a means of aiding clarity, this account is presented chronologically in four stages.

Consultation with Sabraam's parents and representatives of the school using Dale's negotiation model'

- Stage 1 – attempting to involve other family members

Understanding the context of the family and wider community is a key tenet of the negotiation model. Parallels here can be drawn with Bronfenbrenner's (1979) ecological model. Carpenter (2000) stresses the aim of family consultation is to empower families, and in part, this can be achieved through a deeper and more thorough exploration of the child's life in his/her home context. On a similar note, Turnbull and Turnbull (1990) maintain that schools need to be creative in the strategies they employ to ensure family involvement

in their services. They suggest that more often than not, schools target information at the mother only, to the extent that she may become overwhelmed or / and confused. In Sabraam's case, though it was the father who was the sole contact with the school, this remained a possibility and potentially a stumbling block to moving consultation forward.

Sabraam's family were from Pakistan and his mother spoke little English. The first change that I made as an external consultant was to invite Sabraam's mother to the next consultation as well as his father, and to arrange an interpreter for that meeting. However, Sabraam's father attended the next consultation meeting, his mother did not.

- Stage 2 – Active listening

Active listening is a skill that practitioners frequently use. Dale (1996 p. 84) suggests that active listening is functional at a three stage level for parent consultation, maintaining that this facilitates:

- 1) the parent feeling heard;
- 2) the parent reaching a deeper understanding of the problem / situation;
and
- 3) the development of a mutual problem solving environment for both the consultant and parent

My intention here in terms of conveying my listening was to be;

- attentive
- accurate
- empathic; and
- reflective by linking messages back to the parent to show that I had heard and understood their view of the situation.

Following very brief introduction with regard to professional roles and the purpose of the consultation, I actively engaged in a 'listening mode' from the outset of the consultation in an endeavour to move discussions on to a 'stage 3' footing. One of my key aims as a practitioner at this stage of the consultation, and in accordance with the literature, was to make sure that Sabraam's father 'felt heard'.

- Stage 3 - Exploring 'expectation' and attempting to reframe

Some authors argue that a 'needs-based' approach to SEN pertains to a deficit model of disability (Russell, 2003; Rieser, 2001). Lake and Billingsley (2000) suggest that school staff describing a child from a deficit perspective is one of the major causes of conflict between schools and parents. An alternative approach based on the social model of disability sees a focus on the exploration of a child's strengths, aspirations and opportunities to achieve them.

Likewise, Russell (2003) proposes working from a social model of disability when consulting with parents. A key notion here relates to the exploration of 'expectations'. Expectations can be defined as subjective predictions about the future (Russell, 2003). Parallels can be drawn here with Kelly's (1953) personal construct theory and the notion of anticipation. According to Russell (2003), one function of working through the process of setting and reviewing expectations is that a parent will learn and modify their expectations where previously these have not been met. A secondary function may be that it allows for better negotiation and the development of a more equal relationship (Lake and Billingsley, 2000).

I utilised the concept of 'expectation' with Sabraam's father in an attempt to prompt a 'reframing' of his previous unrealistic expectations with regard to outcomes for Sabraam; previously Sabraam's father had stated that he believed Sabraam would be communicating fully by Year 3, even without additional input from the speech and language team. It was also my intention that 'expectation', as a mechanism, might allow me to consult from a purely non-directive stance.

However, Sabraam's father resisted all attempts from me or from other professionals at the consultation to explore his previous expectations and Sabraam's evident lack of progress with regard to his speech and language development. Indeed at this point, the consultation appeared to have traversed away from a non-directive approach towards the other end of the continuum. With some of the school staff now becoming very directive in their

approach and evidently frustrated with the current situation, I ended his phase of the consultation.

Given that the aim of the consultation was to facilitate 'negotiation' and a shared understanding, rather than conflict as had previously been the case, I was unsure at this stage whether or not to continue with the meeting.

Nonetheless, my dilemma remained the same, namely, to balance the needs of the parent and the school, whilst maintaining a central focus on the rights and needs of Sabraam. I felt that the 'current consultation context' would allow for a final attempt at suggesting that PECS might be used in the home environment, and with that I proceeded with my next consultation strategy.

- Stage 4 - 'Congruence' and the accurate presentation of the PECS evidence base in an accessible form.

Cunningham and Davis (1985) propose that an explanation of the nature of 'role conflict' can lubricate difficult consultation. For those working with parents this might involve describing to parents some of the moral and ethical difficulties that they face as professionals in their daily practice. I made use of this 'role conflict' technique during this final stage of the consultation.

I explained to Sabraam's father that as a professional I had to be respectful and responsible with regard to, not only the rights of Sabraam, but also those of his father and the rest of Sabraam's family, whilst at the same time providing a good quality service to the school. My intention here was to be

congruent only, not to initiate a moral or political debate, but simply to illustrate that the current situation was 'difficult' from the perspective of a professional practitioner. The general notion here was that empathy may be forthcoming from the parent and that this would enhance development of a closer working relationship between the practitioner and the parent. Carpenter (2001) draws attention to the importance of openness during parent school consultation and similarly Dale (1996) notes the importance of honesty during difficult conversations.

Information that professionals need to impart to parents can often be specialist and complex in nature. Most certainly, the research supporting the use of PECS was far from straightforward, and it was my intention from the outset of the consultation that I might present this information to Sabraam's parents as a means of explaining to them the basis for my own belief that it was desirable for us to use PECS consistently, and for its use in both home and school settings (had I assumed prior to the consultation that Sabraam's mother would be at the consultation as she had accepted the invitation).

Conveying complex information can pose communication difficulties for professionals working with parents and in this regard numerous surveys cite 'poor communication' by professionals as a major complaint by parents (e.g. Dale, 1996 pp. 51-53). My reasoning prior to the consultation was to try and minimise these potential 'communication difficulties', both for the above reasons, and also, because we had the added variable of an interpreter in the present context. To counter potential 'communication barriers' I summarised

some of the more relevant PECS studies in diagrammatic format (see Appendix 1).

However, this strategy failed. Sabraam's father showed no interest in the diagrams presented, or the orally presented information that I added in support of them. Now with the clear impression that he remained firmly against the idea of the use of PECS within the home, I retreated from this more directive standpoint. This was done not only to be respectful to Sabraam's father, but also as a means of trying to maintain a 'longer term' relationship with him. I invited Sabraam's father and his wife, should she wish to attend, to the next IEP review with the school and closed the meeting.

Conclusion and learning points to be taken from this casework example

Government policy and a raft of supporting initiatives, derived from past experiences and research, dictate that practitioners now work systemically in order to provide good quality service to service users (DfES, 2004a).

Certainly, the profession of educational psychology champions 'eco-systemic practice' as one of its central tenets (DECP, 2002).

In practice, this 'wider focus' present many dilemmas for the TEP / EP, and these may be ethical, professional or / and practical in nature. In this case study these challenges related to 'Who is the client? In whose interest was the referral made? And, which knowledge base is valid and to what degree should this (these) dictate the nature of the service delivery. To add further to the

practitioner's conundrum, such quandaries need to be navigated against a professional backdrop of 'accountability'.

One thing that TEPs / EPs do need to do as a fundamental part of service delivery is ensure that the evidence base of any given intervention(s) is thoroughly reviewed before recommendations are forwarded to service users; the giving of 'false promises' can then be avoided and professional confidence and integrity remains intact. In this case study the evidence base for PECS suggested that this particular augmented communication system was 'fit for purpose', though the evidence base for the efficacy of the approach with regard to facilitating the development of a TOM is not wholly convincing.

Nonetheless, mere recommendation is not enough, and certainly, the insistence that 'the professional knows best' is a misguided notion.

Practitioners need to have the confidence to listen to what parents and children want, with consultation in schools being 'expert guided' not 'expert driven'. We need to work 'with parents and schools' not 'on them'. Democratic dialog is one mechanism that facilitates this. A blind, inflexible, an overly directive approach to consultation, whatever the good intentions, can result in a school – home relationship breakdown, and this serves of little use to meeting the needs of the child and family.

Perhaps this is where the EP's extensive training and lifelong development of core skills come into the fore. The role requires that we not only have an extensive knowledge of an array of interventions and strategies that might

meet the needs of children and their families, but also that we are able to draw on various theoretical frameworks in order to navigate the hugely variable contexts within which we work, to ensure that we respect diversity and 'deliver the goods' in a non-oppressive manner. Indeed, a key learning point to emerge from this case study is that relationships are instrumental in the success of service delivery, and that the development of effective working relationships requires true collaborative working, not tokenism.

References:

American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders IV*. Washington DC: APA.

Asperger, H (1944) 'Autistic psychopathology' in childhood {translated by Uta Frith}. In: U, Frith (ed) (1991) *Autism and Aspergers Syndrome*. Cambridge: Cambridge University Press

Ashton, R., & Roberts, E. (2006) What is valuable and unique about the educational psychologist. *Educational Psychology in Practice*, 22(2), 111-124.

Ayers, J. (1972) *Sensory Integration and Learning Disorders*. Los Angeles: Western psychological Services.

Bailey, A., Phillips, W., and Rutter, M. (1996) 'Autism: towards an intergration of clinical, genetic, neuropsychological and neurobiological perspectives'. *Journal of Child Psychology and Psychiatry*. 37, 89-126

Batten, A (2005) Inclusion and the autism spectrum. *Improving Schools*, 8(1), 92-96.

Beveridge, S. (1997) Implementing partnership with parents in schools, in Wolfendale, S. (ed.) *Working with Parents of SEN Children After the Code of Practice*. London: David Fulton Publishers.

Bondy, A. S., & Frost, L. A. (1994) PECS: *The Picture Exchange Communication System Training Manual*. Cherry Hill. NJ: Pyramid Educational Consultants, Inc.

Bristol, M. M. (1984) Family resources and successful adaptation to autistic children. In: E Scopler & G. B. Mesibov (eds) *The Effects of Autism on the Family*. New York: Plenum

Bronfenbrenner, U (1979) *The Ecology of Human Development*. Cambridge. MA: Harvard University Press.

Callman, T (1996) Negligent local education authorities, *Education, Public Law and the Individual*, 1(1), 3-6

Charlop - Christie, M, H., Carpenter, M., Le, L., LeBlanc, L. A., & Kellet, K. (2002) Using the Picture Exchange Communication System (PECS) with children with autism: assessment of PECS acquisition, speech, social

communicative behaviour, and problem behaviour. *Journal of Applied Behavioural Analysis*, 35, 213-231

Cohen, L., Manion, L. & Morrison, K. (2007) *Research Methods in Education*. London: RoutledgeFalmer.

Cunningham, C., & Davis, H. (1985) *Working with Parents: Frameworks for Collaboration*. Milton Keynes: Open University Press

Dale, N. (1996) *Working with Families of Children with Special Educational Needs*. London: RoutledgeFalmer

Delprato, D. (2001) Comparisons of discrete trial and normalised behavioural language interventions for young children with autism. *Journal of Autism and Developmental disorders*, 31, 315-325

DfES (2001) *Special Educational Needs Code of practice*. London: DfES Publications

DfES (2004) *Removing Barriers to Achievement – The Governments Strategy for SEN* (White paper), London: DfES,
<http://teachernet.gov.uk/wholeschool/sen/strategy/>

Department for Education and Skills (2004a) *Every Child Matters: Change for Children*, Nottinghamshire, DfES Publications.

(DCEP, 2002) Division of Educational and Child Psychology. Guidelines for the professional practice of educational psychologists.

Frith, U (1989) *Autism: Explaining the Enigma*. Oxford: Blackwell

Frith, U (1991) *Autism and Aspergers Syndrome*. Cambridge: Cambridge University Press

Hale, C.M., & Tager-Flusberg, H. (2005) Social communication in children with autism. *Autism*, 9(2), 157-178

Halle, J. W. (1984) Arranging the natural environment to occasion language: Giving severely language delayed children reasons to communicate. *Seminars in Speech and Language*, 3, 185-197

Handleman, J. S. (1979) Generalisation by autistic-type children of verbal responses cross-settings. *Journal of Applied Behavioural Analysis*, 12, 283-294

Happe, F. (1999) Understanding assets and deficits in autism: why success is more interesting than failure. *The Psychologist*, 12, 540-546.

Harris, N (1997) Negligence, liability and educational professionals, *Educational Psychology in Practice*, 14(2), 101-108.

Holroyd, & Baron-Cohen, S. (1993) Brief report: How far can people with autism go in developing a theory of mind? *Journal of Autism and Developmental Disorders*, 23, 379-386

Howlin, P., & Moore, A. (1997) Diagnosis in autism: a survey of over 1200 patients. *Autism*, 1, 135-162

Howlin, P., Mawhood, L., & Rutter, M. (2000) Autism and developmental receptive language disorder: A follow up comparison in early adult life, II: Social, behavioural, and psychiatric outcomes. *Journal of Child Psychology and Psychiatry*, 41, 561-578

Jones, P., and Swain, J. (2001) Parents reviewing annual reviews, *British Journal of Special Education Volume 28, (2), 60-63.*

Kandel, E. R, & Jessell, T. (1995) Early experiences and the fine tuning of synaptic connections. In: E. R. Kandell, J. H. Schwartz, & T. Jessell (eds). *Essentials of Neural Science and Behaviour*. Norwalk, CT: Appleton and Lange, pp 1247-1279

Kempermann, G., & Gage, F. H. (1999) New nerve cells for the adult brain. *Scientific American*, 280, 48-53

Lenore, S. (1998) The Relationship between Environment and Language Development: A Review of Research and Reading. *Review of Historical Research: Summary 6*

http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/90/40.pdf

Leslie, A. M. (1987) Pretence and Representation: the origins of 'theory of mind', *Psychological Review*, 94, 412-26.

Ley, P. (1982) Satisfaction, compliance and communication, *British Journal of Clinical Psychology*, 21, 241-254

Lord, C., & Paul, R. (1997) Language and communication in autism. In: D. J. Cohen & F. R. Volkmar (eds) *Handbook of Autism and Pervasive Developmental Disorders* 2nd edn, New York: Wiley

Lord, C., & Venter, A. (1992) Outcome and follow up studies of high functioning autistic individuals. In: E. Schopler & G. B. Mesibov (eds) *High Functioning Autistic Individuals with Autism*. New York: Plenum

Lotter, V. (1978) Follow up studies. In: M. Rutter & Schopler (eds) *Autism: A Reappraisal of Concepts and Treatments*. New York: Plenum

Lovaas, O. I. (1981) *Teaching Developmentally Disabled Children*. Baltimore, M.D: University Park Press.

McConachie, H., and Diggle, T. (2006) Parent implemented early intervention for young children with autistic spectrum disorder: a systematic review. *Journal of Evaluation in Clinical Practice*, 13, 120-129.

Magiati, I., & Howlin, P. (2003) A pilot evaluation of the Picture Exchange Communication System (PECS) for children with autistic spectrum disorders. *Autism*, 7(3), 297-320.

Nagel, T (1986) *The View From Nowhere*. Oxford: University Press.

Noens, I, & Van Berckelaer-Onnes, I. (2004) Making sense in a fragmented world: communication in people with autism and learning disability. *Autism*, 8(2), 197-218

Nordin, V., & Gillberg, C. (1998) The long term course of autistic disorders: Update and follow up studies. *Acta Psychiatrica Scandinavica*, 97, 99-108

Ofsted (2006) Inclusion: Does it matter where pupils are taught? Provisions and outcomes in different settings for pupils with learning difficulties and disabilities. Ref: HMI 2535 www.ofsted.gov.uk

Ozonoff, S., & McEvoy, R. E. (1994) A longitudinal study of executive function and theory of mind development in autism. *Development and Psychopathology*, 6, 415-431

Premack, D. (1970) A functional analysis of language. *Journal of Experimental Analysis of Behaviour*, 14, 107-125

Premack, D. (1976) *Intelligence in Ape and Man*. Hillsdale. NJ: Lawrence Erlbaum.

Schaaf, R. C., & Miller, L. J. (2005) Occupational therapy using a sensory integrative approach for children with developmental disabilities. *Mental Retardation and Developmental Disabilities Research reviews*, 11, 143-148.

Schwartz, I. S., Garfinkle, A. N., & Bauer, J. (1998) The Picture Exchange Communication System: outcomes for young children with disabilities. *Topics in Early Childhood Special Education*, 18, 144-59.

Sigafoos, J. (2000) Communication development and aberrant behaviour in children with developmental disabilities. *Education and Training in mental retardation and Developmental Disabilities*. 35, 168-176

Sigafoos, J. (2005) From Premack to PECS: 25 years of progress in communication intervention for individuals with developmental disabilities. *Educational Psychology*, 25(6), 601-607

Steele, J., Joseph, R, M., & Tager-Flusberg, H. (2003) Developmental change in theory of mind abilities in children with autism. *Journal of Autism and Developmental Disorders*, 33 (4), 461-467

Turnbull, A., & Turnbull, R. (1990) *Families Professionals and Exceptionality: A Special Partnership*, Columbus: Merrill

Usher, R. (1996) A critique of the neglected epistemological assumptions of educational research, In: Scott, D., & Usher, R (1996) *Understanding Educational Research*. London: Routledge.

Warren, S. F., & Yoder, P. J. (1998) 'Facilitating the transition from pre-intentional to intentional communication'. In: A. M. Wetherby, S. F. Warren and J. Reichle (eds) *Transitions in Pre-linguistic Communication*, pp 365-84. Baltimore, MD: Brookes.

Warnock Committee (1978) *Special Educational Needs: the Warnock Report*, London: DES.

Webb, T. (2000) Can children with autism and severe learning disabilities be taught to communicate spontaneously and effectively using the Picture Exchange Communication System? *Good Autism Practice Journal*, 1, 29-41

Wedell, K (2008) Seeing each other's points of view – SENCos and parents, *British Journal of Special Education*, 35(1) 57-59.

Wetherby, A. M., & Prizant, B. M., & Sculer, A. L. (2000) Understanding the nature of communication and language impairments. In: A. M. Wetherby & B. M. Prizant (eds) *Autism Spectrum Disorders: A Transactional Perspective*, pp 109-141

Wing, L. (1996) *The Autistic Spectrum: A Guide for Parents and Professionals*. London: Constable

Wing, L. (2001) *The Autistic Spectrum*. Berkeley, CA: Ulysses

Whiten, A., ed (1991) *Natural Theories of Mind*. Oxford: Basil Blackwell.

Wolfendale, S. (ed.) *Working with Parents of SEN Children After the Code of Practice*. London: David Fulton Publishers.

World Health Organisation (1993) *Mental Disorders: A Glossary and Guide to their Classification in Accordance with the Revision of the International Classification of Diseases: Research Diagnostic Criteria (ICD-10)*. Geneva: WHO.

Professional Practice Report 3

**The Importance of Context When Devising Classroom
Based Interventions: Working with the
Symptomatology of Attention-Deficit Hyperactivity
Disorder**

**Postgraduate Professional Training Programme in Educational
Psychology: University of Birmingham**

Introduction

This report provides an account of the work I carried out in my role as a Trainee Educational Psychologist in a mainstream primary school, which involved devising an intervention for a Year 5 boy with a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). The school's Special Educational Needs Coordinator (SENCo) requested my involvement in this case study after receiving reports from the boy's class teacher that his behaviour in class was 'unmanageable'.

Following a case study outline, the report briefly discusses some of the key epistemological and methodological issues associated with diagnosis of ADHD and related symptomatology. An overview of contemporary approaches to intervention is then provided and this is followed by critical reviews of the literature deemed relevant to this case study, i.e. behaviourist, cognitive-behavioural and non-verbal instructional approaches. A central principle forwarded in this report is the notion that needs assessment and intervention plans should accommodate not only the recipients of intervention, but also those delivering them. The report concludes with a brief post-hoc critique of the evaluation procedures carried out and provides a reflexive account of how my own professional practice might be improved in that regard.

Case Study Outline

Thomas is a Year 5, nine year old male. He arrived at his current primary school midway through Year 4, via a managed move from another mainstream primary school. He was already at School Action Plus when he arrived, and has a diagnosis of ADHD. Thomas is prescribed methylphenidate (Ritalin) for his ADHD and medicates with this twice daily. No other areas of special educational need have been identified for Thomas, though attainment in most areas of the national curriculum is less than average for his year group (typically 2b-1b). Main concerns identified by the school SENCo relate to disruptive, off-task behaviour, which was the reason for his current referral to the Educational Psychology Service.

ADHD and controversies with diagnosis

Attention deficit hyperactivity disorder (ADHD) is one of the most commonly diagnosed behaviour disorders in children (American Psychiatric Association, 2000; Barkley, 1998). Recent figures estimate that between 3% and 7% of school age children are affected by the disorder (DuPaul and Stoner, 2003), with males nearly three times more likely to be affected (American Psychiatric Association, 2000; Ervin et al., 1996). The DSM IV (American Psychiatric Association, 2000) identifies three subtypes of ADHD, namely predominantly hyperactive-impulsive type, predominantly inattentive type, and combined. Regardless of 'type', inattention, impulsivity and hyperactivity are identified as the three essential characteristics of ADHD.

As yet research has failed definitively to identify biological causality with regard to ADHD (e.g. Banaschewski et al., 2005; Wolraich et al., 2006). Identification of behavioural symptomology associated with the 'disorder' is a highly contested area, and pathology via association has contributed to fervent epistemological debate within the field. Conversely, from a social constructionist perspective ADHD is seen as a social product rather than an objective fact and much of the constructionist orientated literature argues the identification and categorisation of ADHD is affected rather by a range of technological, historical, organisational, socio-cultural and geographical factors (e.g. Purdie et al., 2002; Travell and Visser, 2006).

In an attempt to minimise the subjective nature of ADHD diagnosis, multi-agency teams facilitate the diagnostic process (Williams et al., 1999; Keen et al., 1997). Typically, these teams comprise paediatricians, psychiatrists, psychologists, teachers, and often the parents of the child (DuPaul and Stoner, 2003). By and large, narrative accounts and standardised self-report rating scales comprise the mechanisms used to determine diagnosis (Conners, 1997; Reid and Maag, 1994). The Conners' Parent and Conners' Teacher rating scales are amongst the most commonly used in the UK in that respect (Conner, 1999).

Many referrals for ADHD diagnosis are initiated through schools (Barkley, 1998), or via other settings or agencies that have regard to how a child might function in an educational setting. Whilst behaviour symptoms must be displayed across two or more settings to satisfy diagnostic criteria (American

Psychiatric Association, 2000) this consideration of educational environment has important implications with regard to the nature of diagnosis. In a mainstream school for example, 'disease symptoms' are often identified based on the failure of a child to behave 'appropriately' in the classroom (DuPaul and Stoner, 2003; Purdie et al., 2002). Nonetheless, demarcation between normal or acceptable behaviour and disordered / unacceptable behaviour is frequently arbitrary in classrooms. What constitutes normal classroom behaviour can thus lead to an application of, or notion of, an ADHD label to a child who may simply not pay attention, move around too much, or fail to complete teacher directed activities for a range of reasons.

Whilst it is not the purpose of this report to debate aetiology or assessment methods, it is necessary to draw attention to the differing perspectives and the complexities of identifying the 'disorder', as potentially this affects how interventions, or approaches to intervention, are viewed by professionals who work with / for those children. Indeed, much of the discourse across much of the literature remains rooted in pathology. For example, numerous studies report that most commonly, teachers, parents and children believe ADHD to be a biologically based disorder (e.g. Harborne and Wolpert, 2004; Kendal, 2003; Travell and Visser, 2006).

Rather than an unhelpful 'either or stance', Cooper (1997) recommends that professionals adopt a combined educational-medical approach, in essence akin to a bio-psycho-social perspective (e.g. Tew and Foster, 2005). The intention here is to focus interventionists who work with ADHD related

symptomatology on 'purpose'. Benefits of this can be seen as two-fold. Firstly, it focuses practitioners on outcomes rather than aetiology. Secondly, it facilitates a 'biological to environmental discursive turn', which potentially at least, increases the likelihood that interventions will be embraced by those implementing them, and subsequently be successful. Inter-actionist approaches (e.g. Goffman, 1969) demonstrate that outcomes for children in classrooms can be influenced by labelling (Alvidres and Weinstein, 1999; Rosenthal, 1987; Rosenthal and Jacobson, 1968).

On this note, current NICE guidelines recommend that medication should only be used when symptoms of the 'severe combined-type' are evident (National Institute of Clinical Excellence, 2000) yet at present medication is the most widely used treatment for children diagnosed with ADHD (DuPaul and Stoner, 2003; Purdie et al., 2002).

Approaches to intervention

Not discounting individual differences, and in accordance with the general literature, children with a diagnosis of ADHD often struggle to focus on details, have difficulties following instructions, are easily distracted, and have a tendency to talk excessively and interrupt others (DuPaul and Stoner, 2003). Whilst these difficulties affect children in their wider daily lives, children with a diagnosis of ADHD are likely to experience academic and social difficulties across many classroom and school situations as a result of the core characteristics of ADHD (Purdie and Hattie, 2002) and the literature

converges to support this notion (DuPaul and Stoner, 2003; Purdie and Hattie, 2002). In this respect, the three most frequent correlates of ADHD identified are academic underachievement, non compliance with task-instruction and difficulties with peer relationships (see DuPaul and Stoner, 2003; Barkley, 1998; Hoza et al., 2005).

Interventions that target the symptoms of ADHD can be categorised into five broad types, pharmacological, behavioural, cognitive-behavioural, educational and home / parent-based approaches: these latter two delineations referring specifically to setting whilst incorporating various theoretical underpinnings. In reality, interventions often comprise a combination of these approaches, and frequently across the literature recommendations are made that interventions should be multi-modal and systemic in nature (Gureasko-Moore et al. 2007; National Institute of Clinical Excellence, 2000; Purdie and Hattie, 2002). In this regard, these recommendations are consistent with the wider SEN literature and various government initiatives directing those working with children and their families, such as Every Child Matters (DfES, 2003).

Devising the nature of the work to be undertaken.

Referral of this case study came via the school's SENCo. At a preliminary meeting I attempted to establish what was required in terms of my professional input. This early discussion was intended to be functional in terms of helping both parties to establish the specific aims and objectives of the intended intervention (e.g. to improve attainment, reduce aggressive

incidents, reduce number of detentions, etc). This approach to casework consultation accords with various problem solving models that are used widely by Trainee Educational Psychologists (i.e. Monsen et al., 1998; Woolfson et al., 2003). Nonetheless, the identification of definitive outcomes remained elusive at this stage of my involvement with the SENCo simply stating that Thomas was 'off-task' and causing the class teacher (CT) serious concerns.

Other contextual information that I had been provided with was that Thomas was receiving medication for his ADHD symptoms, and that his parents were unwilling to talk to school staff with regard to his behaviour. Previous attempts had been made by other professionals to involve Thomas' parents in various family-based intervention and these had proved reportedly fruitless.

Following this meeting with the SENCo, I turned to the literature to establish what type of intervention might be beneficial. Initially, I looked to two broad research paradigms, behaviourist and cognitive-behavioural approaches, both of which underpin many types of interventions implemented in school and home contexts (Barkley, 1998; Purdie et al., 2002; DuPaul and Stoner, 2003). With the limited amount of information that I had, I chose not to review educational-based approaches, i.e. pedagogy, at this stage of my involvement.

The next section of this report provides a review of behaviourist and cognitive-behavioural based research in relation to the concept ADHD, the related

symptomatology, and recommended intervention strategies and their outcomes.

Behavioural interventions: a review of the literature

Contingency management uses the principle of operant conditioning to reduce problematic behaviour and increase desired behaviours (Skinner, 1993). A range of primary and secondary reinforcement methods such as time out, contingency contracting, and token reinforcement and response cost procedures, have been shown to be effective in the classroom management of children with a diagnosis of ADHD (DuPaul and Stoner, 2003).

Much of the literature recommends multiple combinations of these approaches to classroom management, though frequently recommendations are vague in terms of identifying the specific combinations of strategies and processes used to gain positive outcomes. There is also disagreement within the literature as to the ratio of positive: negative reinforcement. For example, studies by Robinson et al. (1981) and Pfiffner et al. (1985) suggest that highly individualised incentive systems can be as effective as combined positive and negative reinforcement contingencies, once high rates of appropriate behaviour have been established using both positive and negative consequences. Other studies report negative reinforcement as the most effective strategy with children with ADHD, though these claims are substantiated by teachers' perceptions only (McGoey and DuPaul, 2000).

Pfiffner and O' Leary (1987) carried out a study that incorporated both primary and secondary reinforcement principles; primary relating to the contingency or reward that is directly associated with the target behaviour, and secondary associated via the primary contingency only, i.e. indirectly such as with token exchange. The study build on previous work by Pfiffner et al. (1985) which suggests positive reinforcement alone is enough to sustain on-task behaviour. Pfiffner and O' Leary (1987) sampled eight Year 2 and 3 boys attending a summer school programme for boys displaying high levels of disruptive behaviour in school. All eight boys were rated by their teachers as scoring above two standard deviations on at least one factor of the Conners Rating Scale (Conners, 1969). Four experimental conditions were employed over a 5 week period. These are shown in Table 2 for ease of reference:

Table 2: Pfiffner and O' Leary's (1987) experimental conditions

	Experimental Condition	Descriptor of reinforcement type
Week 1	Regular Positives Alone	<ul style="list-style-type: none"> Teacher used regular positive consequences only, i.e. verbal praise and public posting of completed work
Week 2	Enhanced Positives Alone (a)	<ul style="list-style-type: none"> Frequency of positive consequences increased and also incorporates individualised contingency system where stars are exchanged for rewards from menu, i.e. extra 'golden time' work breaks, 'good note' sent home.
Week 3	Enhanced Positives and Negatives	<ul style="list-style-type: none"> As above but with unlimited use of negative consequences also, i.e. brief and specific reprimands contingent on 'off-task' behaviour As 'on-task' behaviour increases criteria for positive reward becomes more stringent to avoid habituation.
Week 4	Enhanced Positives Alone (b)	<ul style="list-style-type: none"> Negative consequences withdrawn
Week 5	Enhanced Positives and Fading Negatives	<ul style="list-style-type: none"> Reprimands gradually withdrawn after 2 days whilst ensuring that levels of 'on-task' behaviour displayed in Week 3 are maintained

Over the course of the initial week long period 'on-task' behaviour dropped significantly for all 8 boys in the 'regular positive alone' condition. Whilst 'on-task' behaviour was then found to have increased slightly with the use of secondary reinforcers (week 2), this increase only became significant and with immediate effect, when negative contingencies were introduced by the class teacher (week 3). Where positives only were reintroduced the following week (week 4) on-task' behaviour returned to comparable levels to week 1. Finally, when negative consequences were added to enhanced positive consequences in the 5th week of the intervention, even fewer negative consequences, i.e. an average of 3 per hour, than had previously been used, maintained optimal levels of 'on-task' behaviour in that sample,

This is a methodologically robust study by Pfiffner and O' Leary (1987). Observations were carried out behind a two-way mirror, eliminating any response bias. All six observers were blind to the experimental hypothesis, and inter-observer agreement was high (mean = 82% re: positive and negative consequences, mean = 87% re: on-task behaviour). Academic measures with regard task completion were also obtained and triangulated with the observation data. Though sample size was small, data were gathered daily over a 5-week period.

The study by Pfiffner and O' Leary (1987) illustrates that negative as well as positive contingencies are required to maintain improved levels of 'on-task' performance for children with ADHD like symptoms, even following a period of optimum behaviour management using both negative and positive

contingency management strategies. These findings are not congruent with the findings of previous studies suggesting that negative consequences may not be required for children with behaviour problems, once high rates of appropriate behaviour has been established (Pfiffner et al. 1985).

Wider research converges to support Pfiffner and O' Leary's (1987) general findings (e.g. DuPaul et al., 1997). Studies by Abramowitz et al. (1987) and Rosen et al. (1984) for example, have identified the use of mild negative reprimands to be effective in conjunction with positive reward amongst samples with an ADHD diagnosis.

Other studies illustrate that both positive and negative contingencies need to be immediate to have optimal effect with children with ADHD symptoms (Ayllon et al. 1975; DuPaul et al. 1992; Pfiffner and O'Leary, 1993; Robinson et al. 1981) and that children preferred immediacy in that respect (Rapport et al. 1985). Goldstein and Goldstein (1998) refer to this as the 'point of performance' principle; the guiding theoretical notion being that one of the chief underlying 'deficits' in children with ADHD is delayed responding to environmental events (Barkley, 1997, 1998).

Whilst primary reinforcement proved effective in Pfiffner and O' Leary's (1987) study, the introduction of the secondary and immediate token economy system, i.e. stickers, had a significant effect in terms of improving 'on-task' behaviours, and particularly with regard to response-cost management. Rapport (1987) illustrated that effective response-cost management, i.e. not

more than 1 sanction per-minute, and the class teacher looking away immediately following a sanction, can be more effective than medication, such as methylphenidate, for children with an ADHD diagnosis.

This is an important study with regard to classroom management of ADHD in that it clearly delineated the positive and negative contingencies of behaviour management, and identifies the specific and effective management processes that might be used within the classroom environment over time. Moreover, the procedures identified in Pfiffner and O' Leary's (1987) study are consistent with those across the general literature with regard to optimal behaviour management of heterogeneous samples in schools (e.g. Apter et al., 2008; Chalk and Bizo, 2004; Harrop and Swinson, 2000; White, 1975).

A number of key recommendations might be made with regard to the classroom management of children with an ADHD diagnosis. Based on the findings of Pfiffner and O' Leary's (1987) study and the supporting literature (Abramowitz et al. 1987; Ayllon et al. 1975; DuPaul et al. 1992; Pfiffner and O'Leary, 1993; Robinson et al. 1981; Rosen et al. 1984), these are:

- Negative and positive contingencies should be used as part of a behaviour management system for children with an ADHD diagnosis, or ADHD symptomatology.
- Both primary and secondary reinforcement contingency should be used.
- Secondary reinforcement should be used at the 'point of performance' and a minimum time-delay between behaviour completion and primary reinforcement should be sought where possible.

- Once optimal levels of 'on-task' behaviour have been established, negative contingencies should be minimised and monitored consistently to ensure optimal levels of 'on-task' behaviour are maintained.

Cognitive-behavioural approaches: self-management strategies

Cognitive-behavioural approaches are concerned with the mental events, i.e. thinking and reasoning, that are associated with or that influence behaviour. Mental events may comprise perceptions, attitude, expectations, attributions and beliefs (Ayers et al., 2000). Self-management and self-evaluation strategies can be seen as exemplars of the cognitive-behavioural paradigm in action (Purdie et al., 2002).

A primary treatment goal for ADHD is to enable children to develop adequate levels of self-control. With ADHD frequently conceptualised as a disorder of 'self-regulation', self-management is often seen as the 'ideal' in terms of intervention (DuPaul et al., 1997). Self-management interventions comprise strategies incorporating self-monitoring, self-reinforcement and self-instruction (DuPaul and Stoner, 2003).

The popularity of self-management approaches has also developed partly due to the perceived time and effort required to sustain contingency-based approaches (Reid et al., 2005) and the limitations of pure contingency management with regard to the generalisation of target behaviours to other settings. Shortcomings in relation to generalisation have been particularly notable with regard to ADHD-related behaviours (e.g. Ayllon et al., 1975;

DuPaul et al., 1992; Pfiffner and O'Leary, 1993; Turkewitz et al., 1975; Robertson et al., 1979; Robinson et al., 1981).

Not discounting this, cognitive-behavioural approaches (CBT) have shown minimal success with children with ADHD related behaviour difficulties. A meta-analysis of classroom-based CBT interventions carried out by DuPaul et al. (1997) found an effect size of only .19 in relation to an improvement in behaviour for children with an ADHD diagnosis: Cohen's (1988) guidelines with regard to 'effect size' suggest that 0.8 and above can be considered highly significant and anything less than 0.2 considered small (Cohen, 1988).

Several studies indicate that self-management can be effective in improving behaviour for children with ADHD, when these strategies are combined with contingency management procedures (e.g. Barkley et al., 1980; Hinshaw et al., 1984). Reviewing 63 articles, Reid et al. (2005) obtained an effect size of 1.0 for combined approaches in relation to changes in on-task behaviour, disruptive activity and task-completion in that regard.

Rhode et al. (1983) carried out a study using self-evaluation and reinforcement methods involving a sample that were educated in both special and mainstream school settings. In this instance, self-evaluation refers to the evaluatee, i.e. the child, rating himself / herself on the performance of classroom goals / objectives. The study aimed to demonstrate that self-evaluation methods could be used effectively as part of behaviour management in mainstream schools, once positive behaviour had been

established using those methods in a special school setting, i.e. special to mainstream transition. The study builds on the work of Turkewitz et al. (1975) and Robertson et al. (1979) who had previously demonstrated self-evaluation to be an effective behaviour management tool, but in special education behaviour units only and with neither study being able to generalise treatment effects to mainstream settings (Turkewitz et al., 1975; Robertson et al., 1979).

Rhode et al's. (1983) sampled six primary aged boys (mean age 8:2), identified by their school as displaying consistent disruptive behaviour in class, i.e. out of seat, non compliance with adult instructions, aggression towards peers and staff. Self-evaluation procedures involved a 'matching process' whereby pupils evaluated their own classroom behaviour on the same rating scale as their teachers. Primary and secondary reinforcement contingencies were awarded / deducted in relation to accuracy of pupil's self-ratings with teacher ratings.

The intervention was implemented over a fourteen-week period and comprised 2 phases. Phase 1 covered a 7-week period in the behaviour resource unit, and involved a gradual reduction of self-evaluation, matching and associated reward. For example, in week 1 matching was done every 15 minutes and in week 7, self-evaluation was done every 60 minutes and randomly checked 3 times daily. Phase 2 was implemented in the mainstream setting and involved a further phasing-out of self-evaluation, matching and extrinsic reward procedures. By week 14 self evaluations were done 3 times

daily by the pupils and random matches were completed no more than 3 times weekly.

The findings of Rhode et al's (1983) study demonstrate that 'self-management' can be an effective classroom-based intervention for children with a diagnosis ADHD, and / or related behavioural symptoms, when it is paired with contingency management procedures, and when external behaviour monitoring is 'phased-out' over an extended period of time. Pupils were able to transfer and maintain high levels of 'appropriate' classroom behaviour in their mainstream classrooms, once self-evaluation procedures were extended into those settings. For four of the sample, the 'matching component' was phased out almost entirely, without any notable deterioration in their behaviour. Two of the sample required a modification to the original intervention design in order to sustain treatment effects in the mainstream setting.

Research converges to support Rhode et al's. (1983) findings, though these effects have largely been found in treatment or laboratory settings (e.g Hall and Kataria, 1992; Hinshaw and Melnick, 1992). In carrying out meta-reviews of the CBT literature in relation to ADHD, both Poley (1995) and Ervin et al. (1996) report significantly poorer success rates of classroom-based CBT compared to clinic-based CBT interventions.

It might be argued that a key factor with regard to the success of Rhode et al's (1983) intervention relates to the study's detailed design and rigorous

implementation. The study uses a multiple-baseline approach, providing sustained analysis across a fourteen-week period. School staff received extensive training in facilitating self-evaluation and contingency management procedures prior to the intervention period, and programme fidelity was monitored closely by the researchers throughout the intervention period to ensure that procedures were followed accurately. Stokes and Baer (1977) note how generalisation needs to be actively programmed and refer to the importance of sustained, detailed and reliable assessment in this regard.

Other methodologically sound principles are notable from the Rhode et al. (1983) study. Observers received one week's training using the observation schedule prior to the intervention commencing, in order to improve the reliability and validity of observations, i.e. minimise observer-drift with regard to 'on / off task behavioural categories'. Observers were required to achieve at least 85% inter-observer agreement with reliability checkers before taking part in the study. Observation reliability was monitored randomly by researchers throughout the intervention period in order to control for observer reactivity effects. The seminal work of Taplin and Reid (1973) demonstrates that random checking produces optimal inter-observer reliability.

This is an important study by Rhode et al. (1983) in that it illustrates that self-management can work in naturalistic settings for some children with ADHD related behaviour difficulties, providing that research designs are thorough and robust. However, Rhode et al. (1983) access a sample of only six children in their study and a note of caution should be applied as to whether or not

these findings can be confidently generalised into other settings. Other research findings derived from naturalistic settings and using self-evaluation procedures with children identified as having behavioural difficulties (Snyder and Bambara, 1997) or with an ADHD diagnoses (Barkley et al., 1980; Gureasko-Moore et al. 2007; Hinshaw et al., 1984) do support Rhode et al's. (1983) findings, though similarly, these studies are problematic in that they employ single case study designs, or access small samples only, i.e. 3 or less.

A further cautionary point should be made in terms of ecological validity and with respect to mainstream educational settings. In Rhode et al's (1983) study the initial intensive behaviour management strategies were implemented in a resource base provision where the staff-to-pupil ratio is likely to be considerably higher than in standard mainstream settings. Also, the intervention was supported by several researchers. Whether mainstream settings have the resources for the intensive behaviour management and training required at the outset of Rhode et al's. (1983) research design and / or the time to monitor baseline assessment over a sustained period of time thereafter, is questionable.

Key points that can be drawn from Rhode et al's. (1983) findings and the supporting research (Barkley et al., 1980; Gureasko-Moore et al. 2007; Hinshaw et al., 1984; Snyder and Bambara, 1997) with regard to management of ADHD-related 'difficult behaviour' using self-monitoring strategies in naturalistic settings is thus:

Self-evaluation, when paired with contingency management can be effective in naturalistic settings, providing programme design is detailed and applied rigorously.

- Staff should be trained in self-evaluation and contingency management so that programme fidelity is optimised.
- Significant staff resource is required initially in order to develop effective self-evaluation strategies.
- Multiple-baseline evaluation should take place, with treatments being phased-out over a sustained period of time, dependent on context.
- Self-evaluation should be seen as a 'long-term' intervention goal.

Data collection

Following reviews of both the behaviourist and cognitive-behaviour paradigms, I began my observations of Thomas in school. To aid my data collection in this respect, I used Morrison's (1993) observation framework. Morrison (1993) suggests that observation data should cover four aspects of context. These aspects relate to physical, human, interaction and programme settings, as illustrated in Table 1 on p. 22. Morrison's (1993) observation framework was deemed appropriate in this case study, particularly given that an assessment of context was needed before I could devise a keener focus with regard to identifying some of the specific factors that an intervention might target.

The next section of this report provides an account of these observations and the consultation that followed.

Classroom and playground observation

Participants' behaviour can change once they are aware that they are being observed. For example, participants might become anxious and behaviour may improve or worsen as a consequence. Robson (2002) refers to these responses as 'reactivity effects' and my initial focus as observations commenced was to minimise my own potential 'observer influences'. I attempted to achieve this through sketching the layout of the classroom, focusing only on the actual physical layout of the room. I reasoned that this strategy would allow the children to get used to my presence and to feel more relaxed given that my gaze and subsequent notes were not focusing on the children themselves.

From my initial narrative account of the classroom context, two related areas emerged as potential target areas for the intervention to be devised. The first of these was Thomas' off-task behaviour, where he rarely appeared to be completing tasks set by the CT and was frequently disrupting other pupils by flicking his pen for example, and / or reaching under the table or across tables for other pieces of classroom equipment, i.e. children's paintings, other students' bags. A second related area, was the dysfunctional style of interaction that was occurring between the CT and Thomas when he was 'off-task'. The principal observed response adopted by the class teacher was to repeatedly shout at Thomas, which usually had little effect other than to result in an argument between the two of them. Observations suggested that this

style of behaviour management also exacerbated the stress levels experienced by the CT.

Brief playground observations were also carried out and a difficulty that Thomas appeared to be having here related to his interaction with his peer group. Interactions were very brief and he moved from one child / group to another in an attempt to engage a peer. I observed how the other children moved away from Thomas when he approached them.

Table 1 illustrates Morrison's suggested 'settings' and provides working examples of my own focus in relation to each of these areas.

Table 1:

Morrison's (1993) 'Aspects of Context'	Examples of data obtained
Physical setting	<ul style="list-style-type: none">• Sketch of classroom environment, i.e. table layout
Human setting	<ul style="list-style-type: none">• Position of CT and additional resource allocation (TA), and seating plan.• Children identified as having SEN on 1 table at side.• TA positioned next to SEN table
Interaction setting	<ul style="list-style-type: none">• CT leaves children without a task focus whilst she checks her files (approximately 3 minutes).• "Why are you not working (CT shouting at whole class / reprimanding individual children).• Numerous children have to look sideways in order to see the White Board.

Programme setting	<ul style="list-style-type: none"> Primary mode of curriculum delivery was didactic
-------------------	--

Three potential areas for intervention were devised from observations of Thomas in the classroom and playground contexts. These target areas are summarised in Table 2:

Table 2:

	'Off-task' behaviour	Classroom behaviour management	Peer interaction
Potential target areas	<ul style="list-style-type: none"> leaves seat disrupts peers non completion of set tasks 	<ul style="list-style-type: none"> CT shouting at Thomas CT engaging in arguments with Thomas following non-compliance high stress levels (CT) 	<ul style="list-style-type: none"> peer rejection peer frustration

:

Initial consultation with Thomas and his CT: establishing targets

Following observations, brief consultations were carried out separately with both the CT and Thomas, the aim here being to agree on target areas for intervention.

A significant factor to emerge from the consultation with the CT related to the stress levels shown by her when discussing Thomas. She informed me that she was on the verge of handing in her resignation, and that on several mornings she had been in the SENCo's office in tears; the SENCo would confirm this during later stages of my involvement in the case work. Research

shows that teaching children diagnosed with ADHD can affect teachers' stress levels (Bussing et al., 2002; Devino et al., 1995), though obviously this is a highly individualised phenomenon and based on transactional processes (Thomas and Chess, 1980). Greene et al. (2002) obtained self-reports from 62 primary school teachers over a 12 month period. Random 'non-diagnosed' controls were also rated over the same period, and at various stages during the year trained observers coded teacher-responses in relation to the children sampled. Observers were blind to the child's status, i.e. ADHD or not. Teachers rated students with ADHD as significantly more stressful to teach than controls and observation data supported these finding in the sense that it indicated that teachers engaged in significantly higher rates of negative interaction with children diagnosed with ADHD.

Process consultation models (Schein, 1987) orientate towards the consultee, and in that sense it is they who are seen as the central resource in terms of what might be referred to as 'collaborative and exploratory problem solving process' (Huffling, 1996). It focuses on helping the consultee conceptualise the associated 'difficulties' so that they can be helped to generate and select (sometimes from those offered by the consultant) any related solutions / interventions. Facilitation and development of ownership is a chief function of the process orientated consultancy model (Schein, 1987), so that in theory, interventions / solutions emergent from consultation are likely to be more fully engaged with following the consultation process (Huffling, 1996). A process model of consultation (Schein, 1987) was adopted in this instance, both with the CT and Thomas.

Largely, the observation data was confirmed by the CT during consultation, though her account of peer difficulties was framed in terms of peers being frustrated with Thomas in the classroom, particularly during small group-work and the notion of Thomas 'taking over' the group. Contingency management and self-monitoring approaches were broached with the CT during the consultation, though only very briefly as they appeared to exacerbate her levels of distress.

Thomas verified during our consultation that there were difficulties within the classroom with regard to 'off-task' behaviour and with his relationship with the CT. Notably, he stated that despite this awareness, he found that much of the time he was unable to stop himself engaging in these behaviours. His views did differ from the CT in terms of his relationships with his peers, though much of the literature confirms that children with ADHD-like symptoms are often oblivious to dysfunctional elements of their peer relationships, or lack of them (e.g. Heinman, 2005; Hoza, 2007; Hoza et al. 2005).

Two target areas for intervention were agreed in the consultation with the CT and Thomas. These were;

- to help Thomas work more effectively during small-group activities with his peers, particularly with regard to avoiding risks of his dominating the group; and
- to increase levels of on-task behaviour in the classroom.

Though I was not of the view that it was ideal to work with such broad target areas, I was unable to establish a more definitive focus at this stage of the case study. I was also faced with difficulties in that both behaviourist and cognitive-behavioural strategies that I had intended to negotiate as suggested strategies were not appropriate, at least not in terms of 'ecological-fit' and the CT's perceptions. At this stage of the case study I returned to the literature in order to devise an approach that might be conducive to the context that had emerged through consultation, i.e. stress levels of the CT.

A reassessment of approach and a return to the literature

Much of the recent literature emphasises that context is important when devising interventions for children with an ADHD diagnosis. From a thorough review of the ADHD literature and in support of this position, DuPaul et al. (2003) concretise this 'one size does not fit all notion' in the form of four key practical considerations that should be borne in mind by practitioners when devising ADHD focused interventions for children and their families. These are:

- 1) the child's current level of academic skills.
- 2) the environmental functions of a child's inattentive/problem behaviours.
- 3) the target behaviours/and or outcomes of greatest concern to the teacher, parents, and /or student; and

- 4) elements of a teacher's approaches to classroom management and instruction that might limit the effectiveness of some interventions.

(DuPaul, 2003 p. 143)

In summarising a series of recent articles on school based interventions for children with an ADHD diagnosis, Vitiello and Sherrill (2007) approach this notion of 'goodness-of-fit' from the perspective of 'intervention-fidelity'. In short, Vitiello and Sherrill, (2007) draw attention to the fact that whilst positive outcomes for children should be the chief consideration when interventions are designed / proposed by practitioners, these outcomes are contingent upon the school context and the ability of school staff to deliver interventions and programme designs accurately and successfully. On a similar note, Gresham (1989) and Fabiano et al. (2007) acknowledge the importance of developing school based interventions that are sustainable beyond the initial consultation period.

Instructional practice: hand gestures

As previously noted, classroom observations identified that much of the classroom interaction between Thomas and the CT often rapidly deteriorated into an argumentative verbal exchange, this typically within the context of the reactive behaviour management strategies frequently employed by the CT. These 'typical exchanges' were confirmed by the CT as one of the major

factors contributing to her elevated levels of stress. With contingency management and self-management / evaluation strategies seemingly unsuitable approaches at this stage of the research, it was now hypothesised that punctuating these negative interactions earlier, in what might be regarded as a more pro-active management approach, may help reduce stress levels and also provide greater opportunities for other strategies to be introduced which may further help with the management of Thomas' 'off / on-task' behaviours.

Students identified with ADHD are likely to benefit from prevention-oriented classroom-management strategies. Research has shown that pro-active instructional routines can help to ameliorate 'problem behaviour' for children with learning difficulties (e.g. Rayner, 1998; Sulzer-Azaroff and Mayer, 1991). In this regard, the use of cues, prompts, and / or signals is an area of practice that has been shown to be particularly successful with children with general learning difficulties (Garber et al., 1998; Kelly and Church, 1998; Wang et al., 2001), and more specifically, with children with diagnosis of ADHD (Paniagua, 1992; Teeter, 1998; Wang et al., 1996). The general theoretical notion is that non-verbal gestures provide a more concrete and less abstract form of information than speech.

Wang et al. (2004) carried out a study building on previous findings in relation to hand gestures and ADHD, with the study aiming to identify definitively which specific hand gestures improved which particular aspects of on-task behaviour (Wang et al., 2004). Forty-five Year 2 boys with a diagnosis of

ADHD were sampled. The boys were randomly allocated one of three 'teacher-scaffolding modalities', while asked to complete sets of puzzles over three consecutive days in an after school setting. Scaffolding-modalities comprised 'speech only', 'gestures only', and 'speech and gestures combined'. Five types of hand gesture were used by teachers, and their effectiveness measured against three forms of on-task behaviour, i.e. response-frequency to teacher re-direction, on-task-duration, and task-completion rate.

All areas of on-task behaviour improved significantly as a result of hand-gesture-aided scaffolding by teachers in Wang et al's. (2004) study, with speech used in conjunction with hand gestures the optimal condition. Wang et al's. (2004) findings are consistent with the wider research suggesting the effectiveness of hand gestures for children with general learning difficulties (Garber et al., 1998; Kelly and Church, 1998; Wang et al., 2001), and for children with an ADHD diagnosis.

Two definitive forms of gesture were shown to afford the most effective form of non-verbal communication with this sample. These were representational gestures, which imitate the shape of an object, and deictic gestures, which the authors describe as functional in terms of drawing attention to a specific region or area of focus with regard to 'task' (see Louwerse and Bangerter, 2000 for fuller explanation re: gesture types).

Wang et al's. (2004) study incorporates random allocation to control conditions with intervention in a natural setting, and in these respects this is a credible piece of research, though the notion of external validity is not entirely redundant. The study was carried out in an after-school setting where students were engaging with 'puzzle-tasks' only. Gestures may produce different outcomes in a real classroom where students are exposed to other environmental influences, and where they engage with all areas of the curriculum, and with considerably greater cognitive demands in terms of range and complexity of task demands.

Five researchers coded the data, which were obtained via video media. Forty percent of the data was randomly selected for analysis, and inter-rater agreement is reported as high (Wang et al., 2004). The video cameras were placed in the after-school setting three weeks prior to the start of the study in order to minimise potential reactivity effects. Staff received three weeks training in the use of 'scaffolding-modalities' in order to foster standardisation of the methods used across the conditions, thereby improving the validity of the data. Sample size (45 children) was adequate for meaningful statistical analysis to be obtained (Robson, 2002).

This study meets its more specific research aims, in that it identifies definitive aspects of instructional pedagogy that improve on-task behaviour in children with a diagnosis of ADHD. Methods used in the study are uncomplicated and might be mastered relatively easily by teachers. In that sense this study offers

practical value for practitioners, though extrapolating these findings to everyday classrooms should be undertaken / attempted cautiously.

Further consultation and proposed intervention

The idea of non-verbal gestures was considered in a further consultation with Thomas and the CT, where both parties found the approach amenable to the current classroom context. The CT agreed she would use signs to assist Thomas in addressing the two areas of behaviour that had been previously identified through classroom observation and consultation, i.e. off-task behaviour and negative interaction during small group-work with his peer group. It was agreed that Thomas would develop a 'signing-system' in consultation with me which was to be ratified by the CT with regard to 'usability'.

A person-centred-planning approach (e.g. Kennedy et al., 2001) was used with Thomas to devise the signs. It was reasoned that this would facilitate ownership of the strategy and increase likelihood of treatment success.

Thomas devised two signs. The first involved the CT crossing her two index fingers in an 'X-fashion' to indicate to Thomas when he was off-task. Thomas would respond to this by nodding his head indicating that he has recognised and understood the prompt. The second sign related to Thomas working with his peers in small-group situations. The CT would make a 'chain-sign' by linking her two index fingers together to indicate to Thomas that he was

appearing overly-keen with the group task. In response to this sign, it was agreed that Thomas would nod his head in recognition to show that he understood, and try and withdraw to give other children a chance to contribute more fully. The CT agreed Thomas' signing system.

Outcomes

Evaluation of the intervention was carried out at two weeks follow-up via teacher and pupil semi-structured interviews.

The CT revealed that the 'chain-sign' used to target Thomas's interactive behaviour in small group learning situations had been effective. She confirmed that Thomas had responded to this strategy, and that he had been able to use the prompt as a means of 'pulling-back' and allowing his peers the opportunity to contribute more. This, according to the CT, had two effects. Firstly, it had helped Thomas improve his relationships with his peers during small-group work. The CT noted how his peers appeared less frustrated with Thomas. Secondly, it had helped the CT manage the group and the rest of the class much easier. The CT also reported that this strategy had helped reduce her stress levels in small-group teaching situations.

Thomas conformed that the 'chain-sign' had been 'good'. When asked if he knew why he was doing it, he told me that it was to help himself and the CT, though Thomas showed no awareness of any benefits of the strategy with

regard to peer relationships. He told me that the CT had told him that she was pleased that he was using it sensibly.

Both the CT and Thomas reported that the general off-task sign, i.e. finger crossing, had not been effective. The CT had stopped using this sign after a few days.

Evaluating evaluation and professional development

Objectivity is key strength of a behavioural approach and Ayers et al. (2000) recommend that target behaviours should be specific and measurable in that regard. A criticism that might be forwarded of this case study relates to lack of objectivity, both in terms of defining the intended outcomes, and in providing clear and tangible evidence of outcomes.

Targeted behaviours in this case study were 'woolly' at best, and whilst data from the CT and Thomas were triangulated, these were subjective accounts only. Though this allowed 'process aspects' of the intervention to be incorporated into evaluation, which are potentially informative in terms of future intervention (e.g. Pawson and Tillley, 1997), had definitive target behaviours been identified this might have fostered greater reliability in terms of baseline and post intervention data, via fixed interval sampling for example. Robson (2002) notes the importance of establishing clear outcome objectives early on in the research process. Triangulating clear objective data with the

subjective reports obtained would have further enhanced the reliability of the data in this case study.

Important learning points have been drawn from this case study, particularly with regard to 'real world research' and how contextual factors can affect consultation and decision making processes in terms of intervention planning. The CT's elevated stress levels were a significant factor in this regard.

Though essentially, the process consultation model (Schein, 1987) is theoretically positioned as a non-directive method of consultation, in this case study solutions / ideas were proposed to the consultee, given that credible and workable strategies were not forthcoming from the CT herself during consultation; credible relating to evidence-based intervention(s), and workable in reference to the CT's own perceived capabilities to work the intervention in the given context. This process can be likened to elements of the 'purchase consultation model' (see Huffling, 1996), whereby options are offered by the consultant for 'selection' by the consultee.

In this respect it might be said that I moved away from a purist, process consultation model (Schein, 1987), and though great care was applied during consultation so that a client-centred approach was sustained in accordance with the primary goal of facilitating ownership of the intervention, this unavoidably brought elements of researcher identity to the table. Thus, in consultation, directive and non-directive tensions had to be managed, which in essence required me as a practitioner to marshal ownership within the

parameters of the existing evidence-base, and within the presenting research context.

The 'skills' required of the educational psychologist (EP) as 'scientific practitioner' (Cameron, 2006) came to the fore for me as a Trainee EP at this stage of the case work. EPs need to be conversant with a range of approaches and the supporting evidence-base for those, and critically, be skilled in conceptualising with consultee's how strategies and outcomes are to be defined and operationalised so that reliability of outcome is ensured for all parties involved. Whilst my implicit knowledge of theoretical and evidence-based practice expanded during this research process, certainly my consultation skills became more finely tuned and were much improved following this 'real world' case study.

Conclusion

Academic underachievement, non compliance with task-instruction, and difficulties with peer relationships are the three most frequent correlates of ADHD, and / or the related symptomatology identified across the education-based literature (see DuPaul and Stoner, 2003; Barkley, 2006; Hoza et al., 2005). This case study attempted to target 'improvement behaviours' in relation to two of these areas, namely, 'on-task behaviour', and 'peer interaction within small group-based learning situations'.

During the preliminary stages of problem formulation in this case study, behavioural and cognitive-behavioural paradigms were considered to determine efficacy and applicability of theoretical principles with regard to the target behaviours concerned. Much of the behaviourist research examining the effectiveness of contingency management of ADHD in the classroom has tended to be conducted with small samples only, i.e. typically 3 or less (). In accessing a larger sample albeit only six in number, the study by Pfiffner and O' Leary (1987) serves somewhat to consolidating the research evidence in that regard. The general conclusion from the literature reviewed, is that positive and mild-negative, primary and secondary reinforcement contingencies can be effective in the classroom-management of children with a diagnosis of ADHD.

In reference to the cognitive-behavioural paradigm, there is limited evidence to suggest that CBT can be an effective approach outside of artificial settings. Nonetheless, Rhode et al's (1983) study demonstrates that self-evaluation can be effective with regard to targeting ADHD related symptomatology, when contingency management and self-evaluation treatments are systematically phased-out via rigorous evaluation procedures, i.e. multiple baseline assessments.

Both contingency management and self-evaluation approaches nevertheless require a considerable and sustained focus in order to ensure chances of successful implementation and outcomes, at least in relation to ADHD. Given that the class teacher's stress levels were already exacerbated and that she

appeared 'stretched' in terms of resource, these strategies were not deemed 'fit for context' at this time. In this case study, Wang et al's. (2004) signing-system methodology was valid for context, and went some way to meeting the needs of both the child and the class teacher.

Finally, a central point to emerge following the literature review was that the behaviour management principles identified here in relation to ADHD were the same principles that have been shown to be effective for children without the ADHD label (e.g. Apter et al., 2008). Arguably, this in itself raised epistemological concerns with regard to notions of 'diagnoses'. As many argue (e. g. Travell and Visser, 2006), this might suggest that the identified symptomatology is not qualitatively different at all, but rather, just 'more of the same'. On that note Cooper's (1997) recommendations that practitioners focus primarily on 'purpose' are entirely valid.

References:

Abramowitz, A. J., O'Leary, S. G., and Rosen, L. A. (1987) Reducing off-task behaviour in the classroom: A comparison of encouragement and reprimands, *Journal of Abnormal Child Psychology*, 15, 153-163.

Alvidrez, J., Wienstein, R. S. (1999) Early teacher perceptions and later student academic achievement, *Journal of Educational Psychology*, 91, 731-746.

American Psychiatric Association (2000) *Diagnostic and Statistical Manual of Mental Disorders*. Washington, DC: APA.

Apter, B., Arnold, C., and Swinson, J. (2008) MObs research update, debate, CP, Division of Educational and Child Psychology: *The British Psychological Society*, 127 (22).

Ayers, H., Clarke., D & Murray, A. (2000) *Perspectives on Behaviour: a practical guide for effective interventions for teachers (2nd edition)*. London: David Fulton

Ayllon, T., Layman, D., and Kandel, H. J. (1975) A behavioural-educational alternative to drug control of hyperactive children, *Journal of Applied behaviour Analysis*, 8, 137-146.

Banaschewski, T., Hollis, C., Oosterlaan, J., and Roeyers, H. (2005) Towards and understanding of unique and shared pathways in the psychopathophysiology of ADHD, *Developmental Science*, 8(2), 132-140.

Barkley, R. A. (1998) Attention Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment (2nd Ed.). New York: Guildford press.

Barkley, R. A. (1997) Behavioural inhibition, sustained attention, and executive functions: constructing a unifying theory of ADHD, *Psychological Bulletin*, 121(1), 65-94.

Barkley, R. A., Copeland, A., and Sivage, C. (1980) A self-control classroom for hyperactive children, *Journal of Autism and Developmental Disorders*, 10, 75-89.

Bronfenbrenner, U (1979) *The Ecology of Human Development*. Cambridge. MA: Harvard University Press.

Bussing, R., Gary, F. A., Leon, C. E., Garvan, C. W., and Reid, R. (2002) General classroom teachers' information and perceptions of ADHD. *Behavioural Disorders*, 27, 327-339.

Cameron, R. J. (2006) Educational psychology: the distinctive contribution, *Educational Psychology in Practice*, 22(4), 289-304

Chalk, K., and Bizo, L. (2004) Specific praise improves on-task behaviour and numeracy enjoyment. A study of Year 4 pupil's engaged in numeracy hour, *Educational Psychology in Practice*, 20(4), 335-354.

Cooper, P. (1997) Biology, behaviour and education: ADHD and bio-psycho-social perspective, *Education and Child Psychology*, 14(1) 31-37.

Cohen, J. (1988) *Statistical Power Analysis for the behavioural Sciences*. New York: Academic.

Cohen, L., Manion, L., & Morrison, K. (2007) *Research Methods in Education* (6th edition). London: RoutledgeFalmer.

Conners, C. K. (1969) A teacher rating scale for use in drug studies with children, *American Journal of Comparative and Physiological Psychology*, 126, 884-888.

Conners, K. (1997) Is ADHD a disease? *Journal of Attention Disorders*, 2(1), 3-17.

Conners, C. K. (1999) Clinical use of rating scales in diagnosis and treatment of ADHD, *Pediatric Clinics of North America*, 45, 8567-870.

Department for Educational and Skills (DfES) (2003) *Every Child Matters*. London: The Stationary office.

Devino, D., Lehr, A., Leighton, M., Miskar, K., and Chamblis, C. (1995) Relationship between teachers' anti-stimulus attitudes and their experiences with ADHD students. Unpublished manuscript. Ursinus College. Collegeville: PA.

DuPaul, G. J., Eckert, T. K., and McGoey, K. E. (1997) Interventions for students with ADHD: One size does not fit all, *School Psychology Review*, 26, 369-381.

DuPaul, G. J., Guervtemont, D. C., and Barkley, R. A. (1992) Behavioural treatment of ADHD in the classroom: The use of the attention training system, *Behaviour Modification*, 16, 204-225.

DuPaul, G. J., and Stoner, G. (2003) *ADHD in the Schools: Assessment and Intervention Strategies (2nd Ed)*. New York: The Guildford Press.

Ervin, R. A. Bankert, C. L., and DuPaul, G. J. (1996) Treatment of attention deficit hyperactivity disorder. In M. A. Reinecke and F. M. Dattilio (Eds), *Cognitive Therapy with Children and Adolescence: A Casebook for Clinical Practice*. New York: Guildford Press.

Fabiano G. A., Pelham, W. E., Gnagy, E. M., Coles, E. K., and Chako, A. (2007) The single and combined effects of multiple intensities of behavioural modification and methylphenidate for children with ADHD in a classroom setting, *School Psychology Review*, 36, 195-216.

Garber, P., Alibali, M., and Goldin-Meadow, S. (1998) Knowledge conveyed in gesture is not tied to the hands, *Child Development*, 69, 75-84.

Goffman, I. (1969) *The Presentation of Self in Everyday Life*. London: Penguin.

Goldstein, S., and Goldstein, M. (1999) *Managing ADHD in Children: A Guide for Practitioners (2nd Ed.)*. New York: Wiley.

Greene, R. W., Beszterczey, S. K., Katzenstein, K., Park, K., and Goring, J. (2002). Are students with ADHD more stressful to teach? *Journal of Emotional and Behavioural Disorders*, 10(2), 79-89.

Gresham, F. M. (1989) Assessment and treatment integrity in school consultation and pre-referral intervention, *School Psychology review*, 18, 37-50.

Guerasko-Moore, S., DuPaul, G. J., and White, G. P. (2006) The effects of self-management in general education classrooms on the organisational skills of adolescents with ADHD, *Behaviour Modification*, 30(2), 159-183.

Hall, C. W., and Kataria, S. (1992) Effects of two treatment techniques on delay and vigilance tasks with ADHD children, *The Journal of Psychology*, 126, 17-25.

Harborne, A., Wolpert, M., and Clare, L. (2004) Making sense of ADHD: A battle for understanding? Parents' views of their children being diagnosed with ADHD, *Clinical Child Psychology and Psychiatry*, 9, 327-483.

Harborne, A., Wolpert, M., and Clare, L. (2004) Making sense of ADHD: A battle for understanding? Parents' views of their children being diagnosed with ADHD, *Clinical Child Psychology and Psychiatry*, 9, 327-340.

Harrop, A., and Swinson, J. (2000) natural rates of approval and disapproval in British infant, junior and secondary classrooms, *British Journal of Educational Psychology*, 70(4), 473-483.

Hinshaw, S. P., Henker, B., and Whalen, C. K. (1984) Self-control in hyperactive boys in anger-inducing situations: effects of cognitive-behavioural training and methylphenidate, *Journal of Abnormal Child Psychology*, 12, 55-77.

Hinshaw, S. P., and Melnick, S. (1992) Self-management therapies and ADHD: Reinforcing self-evaluation and anger control in interventions, *Behaviour Modification*, 16, 253-273.

Hoza, B. et al. (2005) What aspect of peer relationships are impaired in children with attention-deficit/hyperactivity disorder, *Journal of Consulting and Clinical psychiatry*, 73(3), 411-423.

Huffington, C (1996) Consultation and service development. In Kingsley, J., Kennedy, E., & Kingsley, J. (1996) *The Reflective Professional in Education*. London

Keen, D., Olurin-Lynch, J., and Venables, K. (1997). Getting it all together: a multi-professional approach to the assessment and treatment of ADHD, *Educational and Child psychology*, 14(1).

Kelly, S. D., and Church, R. B. (1998) A comparison between children's and adult's ability to detect conceptual information conveyed through representational gesture, *Child Development*, 69, 85-93.

Kendall, J., Hatton, D., Beckett, A., and Leo, M. (2003) Children's accounts of ADHD, *Advances in Nursing Science*, 26(2), 114-130.

Kennedy et al. (2001) Facilitating general education participation for students with behaviour problems by linking positive behaviour supports and person-centred planning, *Journal of Emotional and Behavioural Disorders*, 9, 161-171.

Louwerse, M. M., and Bangerter, A. (2000) Focusing attention with deictic gestures and linguistic expressions.

<http://www.psych.unito.it/csc/cogsci05/frame/talk/f727-louwerse.pdf>.

McGoey, K. E., and DuPaul, G. J. (2000) Token reinforcement and response cost procedures: reducing the disruptive behaviour of preschool children with ADHD, *School Psychology Quarterly*, 15, 330-343.

Monsen, J., Graham, B., Fredrickson, N. & Cameron, R. J. (1998) Problem analysis and professional training in educational psychology, *Educational Psychology in Practice*, 13(4), 234-250.

Morrison, K. R. B. (1993) *Planning and Accomplishing School Centred Evaluation*. Bereham UK: Peter Francis.

Nagel, T (1986) *The View From Nowhere*. Oxford: University Press.

National Institute for Clinical Excellence (NICE) (2000) Guidance on the use of Methylphenidate for ADHD. London: NICE

Paniagua, F. (1992) Verbal non-verbal correspondence training with ADHD children, *Behaviour Modification*, 16(2)226-235.

Pfiffner, L. J., and O' Leary S. G. (1987) The efficacy of all-positive management as a function of the prior use of negative consequences, *Journal of Applied behaviour Analysis*, 20, 265-271.

Pfiffner, L. J. et al. (1985) A comparison of the effects of continuous and intermittent response cost and reprimands in the classroom, *Journal of Clinical Child Psychology*, 14, 348-352.

Pfiffner, L. J., and O' Leary S. G. (1987) The efficacy of all-positive approach to classroom management, *Journal of Applied behaviour Analysis*, 18, 257-27-261.

Pfiffner, L. J., and O' Leary S. G. (1993) School-based psychological treatments. In: J. L. Matson (Ed.), *Handbook of Hyperactivity in Children*. Boston: Allyn and Bacon.

Poley, J. (1995) Effects of classroom cognitive-behavioural training with elementary school ADHD students. In: R. A. Barkley (1998) *Attention Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment (2nd Ed.)*. New York: Guildford press.

Purdie, N., Hattie, J., and Carroll, A. (2002) A review of reseach on interventions for attention deficit hyperactivity disorder: what works best, *Review of Educational Research*, 72(1), 61-99.

Rapport, M. D., DuPaul, G. J., and Smith, N. F. (1985) Rate dependency and hyperactivity: methylphenidate effects upon operant performance, *Pharmacology, Biochemistry and Behaviour*, 23, 77-83.

Rayner, S. (1998) Educating pupils with emotional and behavioural difficulties: Pedagogy is the key, *Emotional and behavioural Difficulties: A Peer Reviewed Journal*, 3(2), 257-266.

Reid, R., and Maag, J. W. (1994) How many fidgets in a pretty much: A critique of behaviour rating scales for identifying students with ADHD, *Journal of School Psychology*, 32(4), 339-354.

Reid, R., Trout, A. L., and Schartz, M. (2005) Self-regulation interventions for children with ADHD. *Exceptional Children*, 71, 361-377.

Rhode, G., Morgan, D. P., and Young, R. K. (1983) Generalization and maintenance of treatment gains of behaviourally handicapped students from resource rooms to regular classrooms using self-evaluation procedures, *Journal of Applied behaviour Analysis*, 16(2), 171-188.

Robertson, S. J., Simon, S. J. Pachman, J. S., and Drabman, R. S. (1979) Self-control and generalization procedures in a classroom of disruptive retarded children. *Child Behaviour Therapy*, 4, 347-362.

Robinson, P. W., Newby, T. J., and Ganzell, S. L. (1981) A token-system for a class of underachieving children, *Journal of Applied Behaviour Analysis*, 14, 307-315.

Robson, C. (2002) *Real World Research* (2nd ed.). Oxford, Blackwell Publishing.

Rosen, L. A., O' Leary, S. G., Joyce, S. A., Conway, G., and Pfiffner, L. J. (1984) The importance of prudent negative consequences for maintaining the appropriate behaviour of hyperactive children, *Journal of Abnormal Child Psychology*, 12, 581-604

Rosenthal, R. (1987) Pygmalion effects: Existence, magnitude, and social importance, *Educational Researcher*, 16(9), 37-41.

Rosenthal, R., and Jacobson, L. (1968) *Pygmalion in the Classroom: teacher Expectations and Student Intellectual Development*. New York: Holt, Reinhart and Winston.

Skinner, B. F. (1993) *About Behaviourism*. London: Penguin.

Snyder, M. C., and Bambara, L. M. (1997) Teaching secondary students with learning disabilities to self manage classroom survival skills, *Journal of learning Disabilities*, 30, 534-543.

Stokes, T. F., and Baer, D. M. (1977) An implicit technology of generalisation, *Journal of Applied behavioural Analysis*, 10, 349-367.

Sulzer-Azaroff, B., and Mayer, G. R. (1991) *Behaviour Analysis for Lasting Change*. Fort Worth, TX: Holt Reinhart and Winston.

Taplin, P. S., and Reid, J. B. (1973) Effects of instructional set and experimenter influence on observer reliability, *Child Development*, 343, 44, 547-554.

Teeter, P. A. (1998) *Interventions for ADHD: Treatment in developmental context*. New York: Guildford press.

Tew, J., and Foster, J. (2005) *Social Perspective in Mental Health: Developing Social Models to Understand and Work with Mental Distress*. London: Jessica Kingsley Publishers.

Thomas, A., and Chess, S. (1980) *The Dynamics of Psychological Development*. New York: Brunner.

Timmi, S., and Taylor, E. (2004) ADHD is best understood as a cultural construct, *British Journal of Psychiatry*, 184, (9), 187-192.

Travell, C., and Visser, J. (2006) 'ADHD does bad stuff to you': young people's and parent's experiences and perceptions of attention deficit hyperactivity disorder (ADHD), *Emotional and Behavioural Difficulties*, 11(3), 205-216.

Turkewitz, J., O'Leary, K. D., and Ironsmith, M. (1975) Generalization and maintenance of appropriate behaviour through self-control, *Journal of Counselling and Clinical Psychology*, 43, 577-583.

Tymms, P., and Merrell, C. (2006) The impact of screening and advice on inattentive, hyperactive and impulsive children, *European Journal of Special Needs Education*, 21(3), 321-337.

Vittello, B., and Sherrill, J. (2007) School-based interventions for students with ADHD: Research implications and prospects, *School Psychology Review*, 36(2), 287-292.

Wang , X., Bernas, R., and Eberhard, P. (2001) Effects of teachers verbal and non-verbal scaffolding on everyday classroom performances of students with Down syndrome, *International Journal of Early years Education*, 9, 71-80.

Wang , X., Bernas, R., and Eberhard, P. (2004) Engaging ADHD students in task with hand gestures: a pedagogical possibility for teachers, *Educational Studies*, 30(3), 218-227.

White, M. A. (1975) Natural rates of teacher approval and disapproval in the classroom, *Journal of Applied Behaviour Analysis*, 8, 367-372.

Williams, C., Wright, B., and Partridge, I. (1999) ADHD: a review, *British Journal of General Practice*, 49, 563-571.

Wolraich, M. L., Hannah, J. N., Pinnock, Y, Y., and Brown, J. (1996) Comparison of diagnostic criteria for ADHD in a country-wide sample, *Journal of American Academy of Child and Adolescent Psychiatry*, 35(3), 319-324.

Woolfson, L., Whaling, R., Stewart, A., & Monsen, J. (2003) An Integrated Framework to Guide Educational Psychologist Practice, *Educational Psychology in Practice*, 19(4) 283-304.

Professional Practice Report 4

**Evaluation of a Targeted Literacy Intervention:
Greenbank Infant School**

**Professional Doctoral Training Programme in Educational Psychology:
University of Birmingham**

Introduction

The National Literacy Strategy (NLS) was introduced by the government with the aim of raising literacy standards for all children, including those children with Special Educational Needs (SEN) (DfEE, 1998). To meet diversity of need the NLS comprises three types of provision, described as Waves (DfES, 2003). Wave 1 relates to literacy teaching for all children, Wave 2 to a selection of individual or small group intervention programmes which are designed to help children accelerate to an average level of reading, and Wave 3 to highly individualised programmes of support which are typically aimed at children with literacy attainment below the 8th percentile (DfES, 2003).

Whether or not Wave 2 and 3 interventions should be carried out within a whole class setting remains an area of controversy and the argument for inclusion is particularly cogent for Wave 2 provision, given the marginal level of difference between those demonstrating average attainment and those requiring accelerated learning. In this respect, the NLS framework for teaching proposes that schools are best placed to determine where their children should be taught, given their own expert resource and knowledge of local need. Currently there is no statutory requirement for schools to provide any 'scientific' criteria informing these decisions.

This report provides an evaluation of a Wave 2, Year 2 literacy withdrawal group in a Birmingham infant school, the broad aim of which was to determine 'where best to teach accelerated learning'. The commissioning of the study by

the school can be seen as indicative of the school's earnest orientation towards inclusion and its endeavour to provide high quality learning experiences and outcomes for its entire school population.

Case Study

The project was commissioned by Greenbank Infant School following consultation held with Birmingham Educational Psychology Service in November 2008. The Senior Management Team (SMT) at the school were keen to evaluate the impact of 'All Aboard', a programme that is run as an SEN intervention with the purpose of developing the literacy skills of those children judged to be falling behind their peers. To date the school had found it difficult to provide a 'real measure' of impact as no opportunity existed to compare the 'All Aboard' children with a control.

The SMT were also keen to challenge the diverse perceptions held by staff members regarding the value of 'All Aboard'. For some staff, most noticeably Year 2, there was agreement that a child taught in 'All Aboard' would be likely to make greater progress than if they were taught in class. A common reason for this expectation included the perception that children greatly enjoyed the 'All Aboard' sessions. Staff also felt that 'All Aboard' helped to boost self esteem as children are placed in an environment geared specifically towards meeting individualised needs and ensuring frequent feedback demonstrating achievement. However others, most noticeably the Year 1 staff, felt the value of 'All Aboard' was limited and described benefits as minimal.

From the educational psychology perspective this piece of research corresponded with the Birmingham Educational Psychology transformation agenda (Sept 2008) by which the focus of work conducted by EPs in schools was to shift from casework to project-based tasks.

Background to 'All Aboard'

'All Aboard' aims to teach the strategies children need to become successful readers. The materials used aim to develop children's sight vocabulary and phonological awareness, key skills necessary in the development of reading (Solity, 2003). Its use as a SEN intervention indicates that those children who receive 'All Aboard' have experienced some difficulty acquiring basic literacy skills through the early school experiences they have encountered. All children selected are recognised as having a special educational need and are placed at either School Action or School Action Plus on the Special Educational Needs Code of Practice. Having identified a need to 'accelerate learning', 'All Aboard' is delivered in a differentiated learning environment within the school whereby a more favourable adult-child ratio exists (typically 1:6).

Children are withdrawn daily from their classes (while their peers receive whole class literacy teaching) and taught in 'mixed ability' groups by teaching assistants. The teaching session lasts for approximately 45 minutes. The structure of the sessions includes small-group board work, using Direct Instruction methods (Carnine et al., 1997) and differentiated work involving

individual support. Sessions involve shared reading and writing, word level work, and phonological awareness training (i.e. grapheme phoneme correspondences, particularly blending and segmenting) and spelling. High frequency words from the Primary National Literacy Strategy (PNLS) (2006) comprised the focus. Emphasis is also placed on the consolidation and extension of early speech and language skills. Overall curriculum management and supervision of 'All Aboard' is the responsibility of the Head of Year staff.

'All Aboard' is a locally devised intervention and currently there is no published work attesting to the efficacy of the approach. In essence the approach has been adapted based on the existing pedagogy used for regular classroom literacy sessions within Greenbank Infant School. It has been running at the school for 3 years. Historically both Year 1 and Year 2 ran 'All Aboard' sessions. However, following management changes in the school in Sept 07, only Year 2 have continued with the provision.

18 children are selected at the end of year 1 based on National Curriculum data to receive 'All Aboard'. Children are taught in three groups of six, throughout year 2. Three teaching assistants work in 'All Aboard'.

The case for phonics and the National Literacy Strategy

Phonics is currently a central component of the PNLS (DfES, 2006). This follows widespread acceptance that there is strong association between

mastering phonological skills and reading attainment (Adams, 1990; Goswami and Bryant, 1990; Solity, 2008). Studies also demonstrate synthesis and segmentation skills as the best predictors of later reading attainment (Carnine et al., 1997; Solity et al., 2000), irrespective of the developmental patterns in which phonological skills emerge. This suggests that it is early mastery of the skills which parallel reading processes which are most beneficial to young children.

The PNLS (2006) also draws from international (Ehri et al., 2001; Rowe, 2005) and UK (Torgerson, et al., 2006) meta-analyses of phonics instruction, which conclude a 'systematic' approach to teaching phonics forms the optimal teaching process with regard to literacy attainment. Systematic refers to the pace of teaching, e.g. brisk and frequent, as well as the sequence in which skills are taught and how these link to other areas of literacy development, e.g. speaking and listening, spelling and writing.

Core components of systematic phonics are learning grapheme phoneme correspondences and learning to blend and segment (Wyse and Goswami, 2008). The Framework for Teaching (DfES, 2006) informs educators of best practice for phonics instruction in this regard. Though much of the progress in relation to literacy attainment levels in Key Stage 2 has been attributed to the introduction of this 'systematic, synthetics' approach to teaching (Rose, 2006), recent evidence suggests that approximately 25% of pupils are failing to reach the expected standards by the time they move into the secondary sector (Tymms, 2004; Tymms and Merrell, 2007).

Other influences: attitude and self concept

Much of the research has conceptualised attitude to reading as part of a broader construct, 'motivation to read'. For Sainsbury and Schagen (2004) central to such a definition is the idea of intrinsic motivation in the form of a positive self-concept as a reader, a desire and tendency to read, and a reported enjoyment of or interest in reading; and its opposite, a negative self-concept as a reader, a desire and tendency to avoid reading and a reported dislike of the activity. Similarly, Guthrie and Wigfield (2000) in their review and synthesis of research, define intrinsic motivation to read as the enjoyment of reading and the disposition to seek out reading activities. Self-efficacy is also identified, which is described as a confidence in one's own capacity as a reader.

Studies have consistently found that high motivation and positive attitudes are related to higher reading achievement and more frequent reading (e.g. Baker and Wigfield, 1999; McKenna et al., 1995). McKenna et al. (1995) carried out a large-scale survey in the United States using an attitude questionnaire consisting of questions relating to a number of reading situations and found positive attitude to reading to be positively correlated with reading attainment. Similarly in an extensive study in the UK that sampled over 5000 children, Sainsbury and Schagen (2004) found a significant relationship between higher attainment and positive attitudes to reading, though enjoyment of reading declined for high achievers over the course of the study, between 1998 and 2003. Of particular note, lower attainers consistently reported

greater enjoyment of reading when closely supported with adults (Sainsbury et al., 1998; Sainsbury and Schagen, 2004).

Importance of early intervention

Statutory guidance directs that Early Years provision should focus intently on the development of core language and literacy skills, such as speaking and writing, and in particular reading, and that these should be fostered within an environment of enjoyment to facilitate success (DfES, 2007). Research demonstrates that development of early communication skills during the formative years is critical to good outcomes in terms of literacy attainment (Siraj-Blatchford and Silva, 2004), whilst effective use of formative assessment to inform programme design and pedagogic practice, aligned to and good links between the home, Early Years Foundation Stage and Key Stage 1 provision aim to promote and maintain a preventative focus in that regard (Black and Williams, 1998; Sadler, 1998; Rose, 2006).

Targeted intervention: Wave 2 provision

Where assessment identifies delays in literacy acquisition, Wave 2 interventions aim to facilitate 'acceleration' so that children at risk of reading failure can continue to be taught in regular classroom settings (DfES, 2003). Currently, the PNLS (DfES, 2006) recommends supplementary phonological awareness training (SPAT) via smaller, highly differentiated teaching groups as a means of achieving this. Identification of early potential reading failure

and targeted, evidence-based intervention are seen as critical to good outcomes in this regard (DfES, 2007).

It has been shown that withdrawal-based SPAT can accelerate the development of literacy skills in young children at risk of reading failure (e.g. Snow et al., 1998), though these interventions typically span several months rather than weeks. Byrne et al. (1995), Foorman et al. (1997) and Whitehurst et al. (1999) for example, demonstrate that SPAT can improve phonological development in pre-schoolers 'at-risk', though treatment gains were not extended to reading scores on standardised tests. Other studies have shown that benefits of SPAT can extend to generalised reading (Blachman et al., 1999) with gains maintained at 1 year follow-up (Blachman, et al., 2004). Hatcher et al. (1994) have shown that early literacy support programmes can be effective for low attaining readers and that systematic phonics instruction delivered at group-level can be as effective as highly individualised 1 to 1 instruction (Hatcher et al., 2006), such as in Reading Recovery (Clay, 1995).

Not all interventions external to the whole classroom environment focus purely of SPAT, and other work orientates towards more holistic and systemic influences on reading attainment rather than solely skill development within schools. Brooks (2002) provides a review of intervention schemes, some of which are withdrawal based, but include complementary forms of support to SPAT, such as home-based Family Literacy (Brooks et al., 1996) and Paired Reading programmes (Topping, 2001). Similarly, early development and research by MacKay (1995, 1999) supplemented a phonics input with paired

reading, and innovatively, weekly group-work sessions aimed at changing attitudes and values and enhancing children's enjoyment of reading.

MacKay's (1995, 1999) work has proved particularly successful in relation to improving enjoyment of education and draws heavily from this other literature that links self-concept through early reading experience to later literacy attainment (Chapman and Tunmer, 1997, 2003).

Can accelerated learning can be organised inclusively?

Research has attempted to address the question of whether or not phonological interventions which meet the needs of specific children would 'hold back' other pupils in regular classroom environments. Hatcher et al. (2004) utilising a withdrawal programme that had previously shown good outcomes for poor readers (Hatcher et al., 1994), showed that SPAT had no impact on the top two thirds of readers, and similarly Ehri et al. (2001) concluded from a meta review that transfer of SPAT to reading was greatest for those at risk of reading failure rather than for those making average or better reading progress. These studies suggest using SPAT within standard classroom teaching environments would have negligible benefits for children who are not experiencing difficulties with literacy attainment. In contrast, the UK National Reading Panel concluded systematic phonics training to be beneficial for children of all levels (Torgerson et al., 2006), though critically only 4 of the 14 studies reviewed were with normally developing readers.

A criticism that can be made of government directives associated with implementation of the NLS, is the positioning of literacy attainment within an atomised framework (e.g. DfES, 2003; Rose, 2006; Gilbert, 2007). Whilst various documents advocate embedding the NLS within a broader, language-based curriculum, and also endorse the value of wider community input in that regard, e.g. from parents and early years provision (Siraj-Blatchford and Silva, 2004), in effect focus is placed centrally on phonics 'skills' development, with responsibility laid fundamentally at the door of schools, and more specifically teachers.

Knight (1999) notes how resistance to inclusion arises in schools fundamentally as a result of teachers perceiving that they are unable meet the diversity of need that typical classrooms present. In this regard, much criticism has been made of the organisation and content of the NLS and its ability to meet the needs of low tail performers or / and those identified as having SEN (Lingard, 2000; Miller et al., 2003; Sainsbury et al., 1998; Wall, 2003). The pressures that schools face in terms of reaching national targets have been identified as a central component in terms of demoralising and disgruntling the teaching workforce (Hardman et al., 2005; Lingard, 2000).

Much of current policy and initiative neatly evades responsibility in terms of poor literacy attainment and in essence, policy covers all bases. When readers fail, inadequate parenting, Early Years and / or Key Stage 1 provision are identified as primary causal influences. Despite the rhetoric in reality this is one step removed from a 'deficit model' of literacy failure, this irrespective

of a poorly researched NLS and the development of a rigorous evidence base in terms of optimal teaching practice and associated training provision.

Further work by Mackay (2005, 2007) avoids this 'reductionist' shortfall, where in conjunction with other holistic and community focuses support for literacy, he extends earlier, successful withdrawal-based phonics provision (MacKay, 1995, 1999) into the classroom and shows good and sustained outcomes in reading attainment for children from socio-economically deprived backgrounds. Socio-cultural disadvantage has been identified as the single most prevalent factor to reading failure in young children (e.g. Cox and Jones, 1983; Essen and Wedge, 1982; McMillan et al., 1994). Components of Mackay's intervention include quality teacher training in systematic phonics and direct instruction methods, paired reading programmes involving parents, positive attitude to reading groups, visionary goals formulated by schools and wider communities, and 1 to 1 support.

Arguably, MacKay's (2007) work provides amongst the 'best evidence' of successful 'inclusive' provision. Impressively, the intervention effectively eradicated endemic reading failure across an entire authority within a period of only 10 years. Critically, the wider-lens facilitated a 'no-blame approach' for professionals working in the authority and some of the attributions made in terms of successful outcomes of the project were the betterment of staff morale in that regard.

Of similar note, Solity (2003, 2008) draws attention to the notion of teachers being blamed for failing readers, in the context of the poor quality research, or lack of it, that informs the NLS (Sainsbury, 1998; DfES, 2003). In essence, Solity's critique of the NLS centres on two issues. Firstly, that there are currently no objectively derived theoretical or instructional principles informing actual delivery of the NLS (Wragg et al., 1998). Solity is particularly scathing in terms of observational and case study methodologies that result in what he refers to as merely 'tips for teachers' (Solity, 2003). Attention is also drawn to the limitations of current models of teacher training (DfES, 2003c p 19) in that regard, and particularly in relation to the concept of direct instruction (Engelmann and Carnine, 1982). The second issue relates more to the actual content of the NLS and the misguided assumption that developmental research (e.g. Bowey and Francis, 1991; Treiman and Zukowski, 1996) provides an optimal framework in terms of the processes associated with learning to read (Wyse and Goswami, 2008).

Solity has developed an instructional approach that aims to reduce the risks of / need for targeted intervention. His work, drawing heavily from the field of rational (Anderson, 1990) and behavioural psychology (Wheldall and Carter, 1996), adopts a much more functional approach in that respect, positing that the processes which give learners greater access to text, more rapidly and effectively facilitate literacy gains. The notion here is that development of fluency with an optimal number of sight words, chiefly facilitated through direct instruction methods (e.g. Foorman et al., 1998), frees up cognitive resource to focus on reading comprehension, which in turn facilitates the development of

further intrinsically motivated reading processes. Very detailed and rigorous experimental research supports Solity's 'theory of optimal instruction' (Solity et al., 2009; Solity and Vousden, 2009) and his Early Reading Research (Solity et al., 2000) projects have shown that SPAT can be successfully integrated into classrooms to the benefit of all readers, inclusive of the lowest and highest achievers. Considerable quasi-experimental research data showing literacy gains over a sustained period of time support the claims made in this regard (Solity et al., 2000; Solity and Shapiro, 2008).

Summary of the literature

Targeted interventions using only supplementary phonics awareness training (SPAT) have shown positive outcomes, but largely SPAT has been in addition to standard literacy input within regular classrooms. Other initiatives have successfully accelerated literacy development through using multi-strand, eco-systemic approaches and this has been achieved both inclusively, and outside of regular teaching provision. Arguably, the lack of a credible evidence-base, along with poorly defined policy and government directives act as constraining factors to optimal teaching practice. Specifically, Solity avoids this shortfall with his 'optimal instruction approach' and as with the work of Mackay (2007) he provides a robust evidence-base to support good outcomes. Finally, generally across the literature positive academic self-perception and enjoyment of reading is associated positively with successful outcomes, with early identification of reading failure thought to be critical in this regard

Aims of the current research

The current study aims to evaluate the impact of 'All Aboard' *and* differentiated whole class teaching on the literacy skills of Year 2 pupils identified as having had some difficulty acquiring literacy skills. Two broad factors are seen as orientating the focus of this commissioned evaluation. These are, firstly the general orientation and ethos of the senior management team in terms of their drive to improve literacy attainment, and to promote social inclusion for all children at Greenbank Infants. And secondly, the efficacious aspects of the evidence base in relation to literacy attainment, as outlined in the review of the literature. Given this focus, the agreed research questions were as follows:

- Do children who attend 'All Aboard' make greater progress than those at the same literacy level taught in class?
- Do children who attend 'All Aboard' enjoy literacy lessons more than those taught in class?
- Do children who attend 'All Aboard' perceive themselves as more confident to read, write and spell than those taught in class?
- Are children who attend 'All Aboard' as socially included as those taught in class?

A central point of note is that the composition and design of 'All Aboard' was pre-devised prior to my involvement as a researcher. Thus, for this evaluation,

hypotheses were developed and formulated based on the current and relevant literature, and the existing intervention design.

In terms of this research, the intervention focused on the development of phonics skills only. Little had been developed within the 'All Aboard' intervention, in terms of utilising wider community resources, such as parents and grandparents using paired reading programmes for example. Moreover, 'All Aboard' was 'instead of', rather than supplementary to regular literacy provision for these children. Thus, in relation to the central research question, it was not assumed that 'All Aboard' would produce better gains in literacy than the current regular classroom provision.

In terms of other influential factors, 'All Aboard' had a higher staff to child ratio (1:6) than the whole class provision (2:23). With potentially more sensitively differentiation of learning, and increased levels of interaction and attention, it was posted that children in 'All Aboard' would enjoy literacy and develop improved academic self-perception in relation to literacy skills. However, given the timescale of evaluation it was not envisaged that this would be sufficient to impact literacy gains significantly for this group of children in comparison to the whole class condition.

Hypotheses:

Hypothesis 1: Pupils who receive 'All Aboard' will not make more progress with literacy than those in the whole class teaching group

Hypothesis 2: Pupils who receive 'All Aboard' will enjoy literacy more than those in the whole class teaching group.

Hypothesis 3: Pupils who receive 'All Aboard' perceive that they are better at literacy than those in the whole class teaching group.

Hypothesis 4: Pupils who receive whole class teaching are socially more fully included than those in the 'All Aboard' provision.

Design

Participants

In July 2008 18 Year 1 children identified as 'at risk' of reading failure were selected for the current project. Parental consent was requested (Appendix 1). The school's senior management team (SMT) selected those children to whom they had historically offered 'All Aboard' provision, based on criteria including National Curriculum (NC) data and teacher assessment. For the purposes of this report children's reading skills ranged from NC P3 – 1b, Writing from NC P5 – 1b and Speaking and Listening from P6 – 1a. (At the end of Year 2 children are expected to reach NC level 2 across the range of skills). The 18 children were then split into three mixed ability groups of six. The SMT decided two of these groups were to receive 'All Aboard' provision (n=12) and one to receive whole class differentiated teaching (n=6) for the

period of time agreed for the evaluation (9 weeks). Again the SMT decided which of these groups were to receive 'All Aboard' and which was to receive whole class teaching.

Each of these three groups received daily teaching sessions of 45-55 minutes duration, delivered by either a teaching assistant (in the 'All Aboard' Group) or class teacher and teaching assistant (in the whole class teaching group)

Teaching procedures

Children in 'All Aboard' received teaching as historically completed within 'All Aboard' (see previous section 'Background to All Aboard').

Teaching within the whole class condition involved white board work using Direct Instruction methods (Carnine et al., 1997) and differentiated small-group work. Sessions involve shared reading and writing tasks and word level work, including phonological awareness training (i.e. grapheme phoneme correspondences, particularly blending and segmenting) and spelling. High frequency words from the Primary National Literacy Strategy (PNLS) (2006) comprised the focus.

It should be noted however that the Year 2 teacher (delivering the whole class teaching group) chose to split the class into 2 groups (higher and lower achievers) whereby she and her teaching assistant led different sessions. The class teacher and teaching assistant swapped weekly, which group they led.

Measures

Children were assessed at same time of day, i.e. between 9:30 am and 12:00 midday, at both pre and post assessment in both conditions and in the same order to minimise participant error and improve reliability of the study. All assessments were completed in a partitioned area of the school library.

Literacy skills: Standardised tests have previously demonstrated poor validity with similarly orientated research (e.g. Whitehurst et al., 1999; Foorman et al., 1997), therefore to assess children's literacy skills a criterion referenced assessment was used (Appendix 2). Assessment materials were adapted from Solity's Early Reading Research (Solity et al., 2000), which demonstrate good reliability (Solity and Shapiro, 2008). In this test children were asked to read 100 high frequency (common) words, sound out 26 letters, read 60 phonically regular words, synthesise (blend) 20 words, and segment 30 others.

Enjoyment: Children's enjoyment of literacy was assessed using a simple rating scale, the 'Smiley Questionnaire' (Appendix 3). Standardised instructions were used to promote consistency. Children were asked 'how many smiley faces would you give....?' and then prompted to think about Numeracy, PE, Science, Playtime, Literacy and Assembly, the penultimate category being of interest to the evaluation. Children were given cut out smiley faces and a chart showing the following: 5 faces = Doing this is the best, 4 = I like doing this a lot, 3 = I like doing this sometimes, 2 = doing this is

ok, 1 = I don't like doing this much and 0 = I really don't like doing this ever.

Given the age and literacy skills of the participants I did not expect them to read information presented but instead provided support and assistance when necessary.

Self perception: The children's self perception was sampled using the 'mountain task' (Appendix 4). Based on the principles of solution focused brief therapy, children were asked to rate how good they thought they were at: swimming, playing, reading writing, sleeping, talking, catching a ball, spelling and dancing; the third, forth and ninth categories being of interest to the evaluation. Questions were presented in the same order and in addition to improving reliability, this provided the children with the opportunity to get used to and understand the procedure and thereby potentially minimising invalid responses to the constructs / areas of interest, i.e. reading, writing and spelling. The 'mountain task' involved a picture of a mountain that contained a winding road. Children were asked to point having been given this preamble: 'If you think you are good you would point to somewhere near the top of the mountain road, if you think you are ok you might point somewhere towards the middle. If you think you find it difficult you would point somewhere towards the bottom. You can point to anywhere on this road.' Children's responses were recorded on the picture and then rated from 1 (being not very good) – 5 (being very good) according to a predetermined criterion.

Social Inclusion: To assess the children's social inclusion a teacher rating scale was devised (Appendix 5). The class teachers and teaching assistants

involved in teaching the 3 groups were asked to complete a survey and rate from 1 (not at all) – 5 (almost always) how socially included they felt each participant was as compared to their peers in their class.

Procedure

Participants were chosen and assigned to either the 'All Aboard' or whole class teaching group by school staff. All the measures were then administered to all 18 children prior to the start of the evaluation period (8/9th Sept 2008). The children either received 'All Aboard' or whole class teaching for a period of 9 weeks. Pupils were then reassessed using the same measures (2nd Dec 2009).

Results

The following section provides results for the four hypotheses generated to answer the research questions posed (for raw data see Appendix 6).

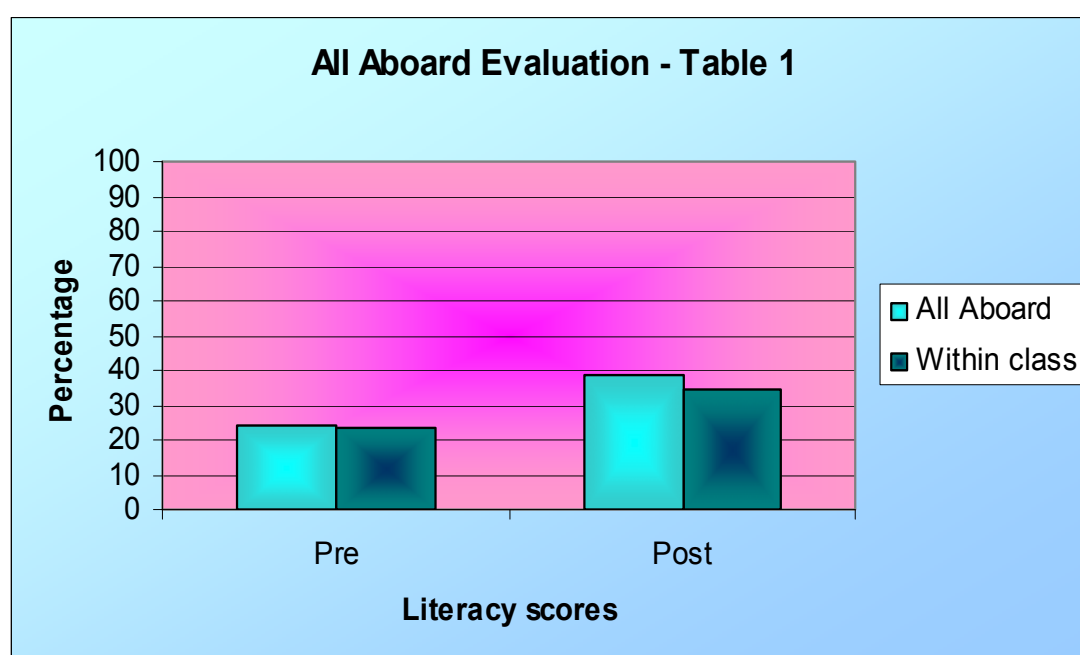
Hypothesis 1: Pupils who receive 'All Aboard' will not make more progress with literacy than those in the whole class teaching group

A two way mixed ANOVA was used to test the impact of 'All Aboard' and whole class teaching (the independent variable - IV) on the dependent variable (DV) of literacy skills. This was appropriate as it allowed for the

analysis of the individual, group and interaction effects. A significance level of $p < 0.05$ was chosen.

Results showed that, although there was a significant improvement in literacy overall ($F = 21.469$, $p = < 0.001$), there was no significance with regard to improvement in literacy between the 'All Aboard' and whole class teaching groups ($F = .582$, $p = 0.316$).

Table 1 (percentage scores relate to number of letter sounds and words read, blended and segmented correctly (derived from Solity et al., 2000)



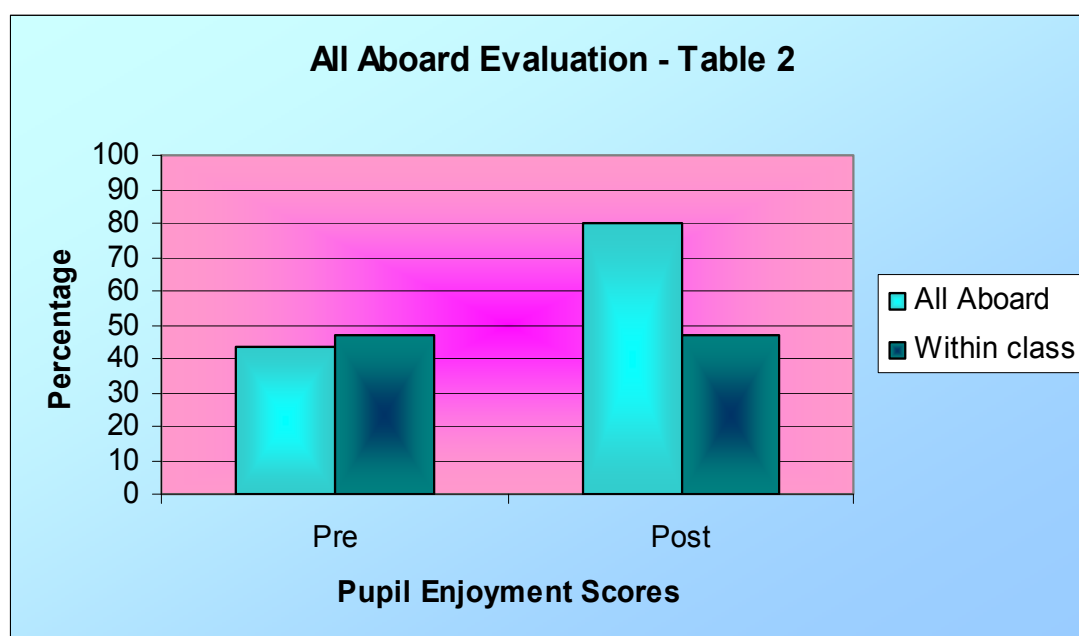
Hypothesis 2: Pupils who receive 'All Aboard' will enjoy literacy more than those in the whole class teaching group.

The Wilcoxon and Mann Whitney tests were used to test the significance of 'All Aboard' and whole class teaching (IV) on the DV of enjoyment. This was

appropriate given the ordinal nature of the data collected. A significance level of $p < 0.05$ was chosen.

Results showed that there was a significant difference in the pre and post scores of the 'All Aboard' group ($z = 2.203$, $p = 0.014$) but no significant difference in the pre and post scores of the whole class teaching group ($z = .272$, $p = 0.392$). Children's enjoyment of literacy showed no significant difference between the two groups pre scores ($U = 29.000$, $p = 0.479$). However following the evaluation children's enjoyment of literacy was significantly more in the 'All Aboard' group post score ($U = 14.000$, $p = 0.031$) as compared to the whole class post score.

Table 2 (percentage scores relate to children's enjoyment of literacy in comparison to other curriculum areas using a Liker-type rating scale of 1-5)



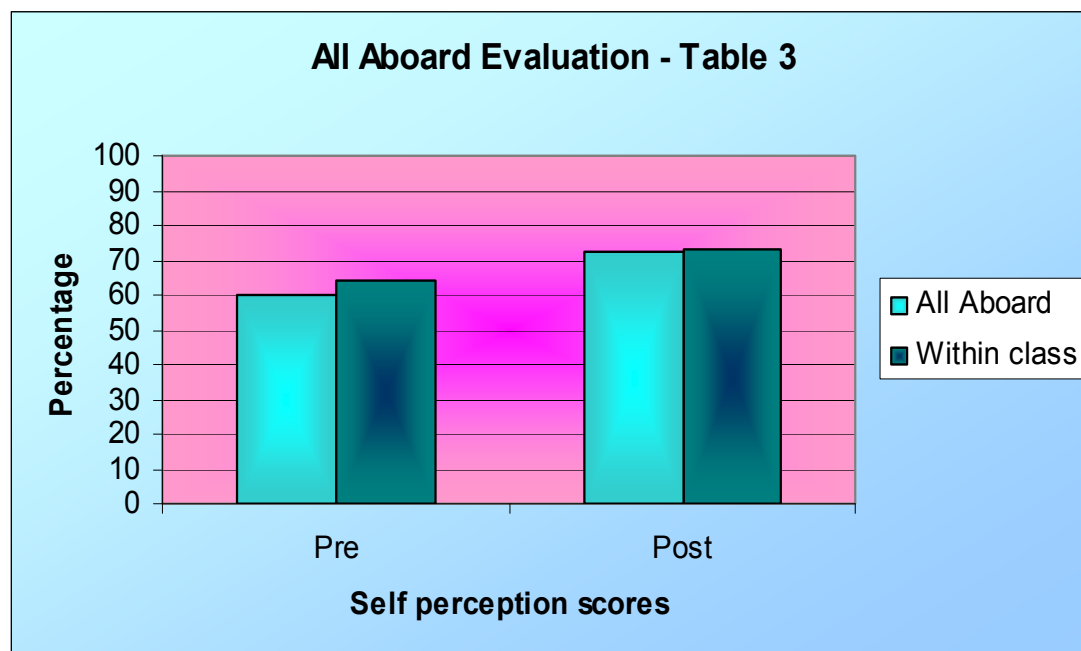
Hypothesis 3: Pupils who receive 'All Aboard' perceive that they are better at literacy than those in the whole class teaching group.

The Wilcoxon and Mann Whitney tests were used to test the significance of 'All Aboard' and whole class teaching (IV) on the DV of self perception. This was appropriate given the ordinal nature of the data collected. A significance level of $p < 0.05$ was chosen.

Results showed that there was a significant difference in the 'All Aboard' group pre and post scores ($z = 1.893$, $p = 0.029$) but no significant difference in the pre and post scores of the whole class teaching group ($z = 0.948$, $p = 0.17$).

Both before and after the evaluation children's self-ratings of their literacy skills showed no significant difference between the pre ($U = 38.500$, $p = 0.5$) and post scores ($U = 26.000$, $p = 0.145$) respectively.

Table 3 (percentage scores relate to children's appraisals of how good they thought they were at reading using a Liker-type rating scale of 1-5)



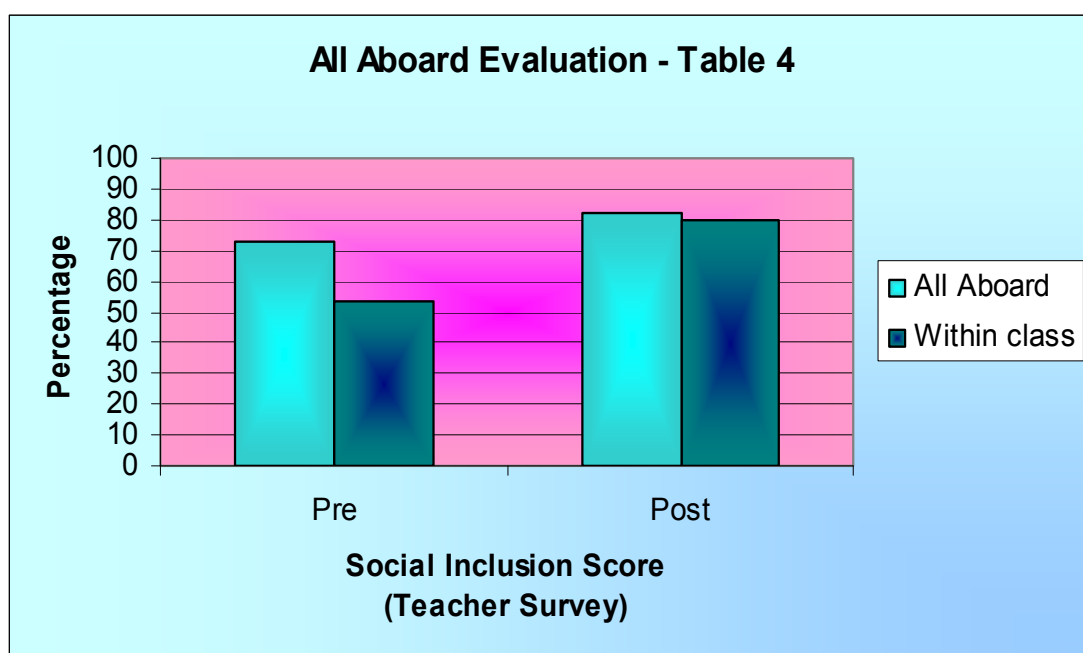
Hypothesis 4: Pupils who receive whole class teaching are socially more / better included than those in the 'All Aboard' provision.

The Wilcoxon and Mann Whitney tests were used to test the significance of 'All Aboard' and whole class teaching (IV) on the DV of social inclusion. This was appropriate given the ordinal nature of the data collected. A significance level of $p < 0.05$ was chosen.

Results showed that there was a significant difference in the pre and post scores of the whole class teaching group ($z = 2.070$, $p = 0.019$) but no significant difference in the pre and post scores of the 'All Aboard' group ($z = 1.508$, $p = 0.06$). Children's social inclusion was significantly different

between the two groups pre scores ($U = 15.000$, $p = 0.039$). However following the evaluation no significant difference was found between the two groups post scores ($U = 30.500$, $p = 0.404$).

Table 4 (percentage scores relate to children's appraisals of how included they felt they were using a Liker-type rating scale of 1-5)



Main findings

Hypothesis 1 accepted:

- All children's literacy scores progressed significantly over the 9 week evaluation period regardless of receiving 'All Aboard' provision or whole class differentiated teaching.

Hypothesis 2 accepted:

- Children's enjoyment of literacy increased significantly following 'All Aboard' provision whereas levels in the whole class teaching group remained static.

Hypothesis 3 accepted:

- Children perceive that they are significantly better at literacy having received 'All Aboard' as opposed to whole class teaching.

Hypothesis 4 accepted

- Children's social inclusion is significantly promoted as a result as having whole class literacy teaching whereas the levels in 'All Aboard' remain static.

Discussion

The aim of this project was to evaluate the effectiveness of the withdrawal-based intervention programme compared to whole class differentiated teaching, with literacy attainment central to evaluation in this respect. No significant differences between the two teaching conditions were found for literacy attainment over the evaluation period and this suggests that 'All Aboard' provision does not better facilitate 'catch up' for children in this school.

A number of reasons might be posited as to why there were no significant gains made in 'All Aboard'. First and foremost, 'All Aboard' was provided 'instead of' the daily literacy hour that these children would have otherwise received in the regular classroom setting, not in addition. Practically all of the

successful withdrawal-based studies provide Wave 2 intervention in the context of additional phonics input (e.g. Byrne et al., 1995; Foorman et al., 1997; Hatcher et al., 1996; Brooks, 2002). Hatcher et al. (2006) for example, provided a total of 60 x 20 minute phonics training sessions in addition to standard provision for literacy. Likewise, interventions successfully integrated within regular classroom settings have typically involved other forms of literacy support in addition to SPT (e.g. MacKay 1995, 1999; Brooks, 2002). Using 'All Aboard' as stand-alone provision may have been too little in terms of accelerating learning in this sample of young children. Moreover, other interventions lasted over a period of months not weeks (Byrne et al., 1995; Blachman et al., 2004). The 'All Aboard' evaluations spanned a total of 9 weeks only.

Children's enjoyment and reported confidence in literacy were positively affected by participating in the 'All Aboard' sessions, to an extent significantly greater than levels reported by children taught in the regular classroom. Both confidence and enjoyment are associated with improved development of literacy skills in young children (Byrne, 1996; Chapman and Tunmer, 1995; Spear-Swerling and Sternberg, 1994), with research converging to demonstrate early reading success or failure to be associated with the development of positive and negative academic self concept respectively (see Chapman et al., 2003). Chapman et al. (2000) for example have identified associations between negative academic self-concept and poor phonological skills, particularly for children identified as experiencing reading failure in Early Years settings.

The similar improvements in attainment for literacy across both conditions in our study, suggests other contributory factors may have enhanced the enjoyment and positive self-concept in the 'All Aboard' condition. One possibility is that the 'All Aboard' pupils were now more comfortable situated within a peer group working at a similar level than they had been previously in the main classroom where social comparisons with higher achieving pupils may have been likely. Extensive research from the assessment for learning paradigm (Black and Williams, 1998) has shown that social comparisons made in relation to academic performance have a negative impact on student motivation and task engagement. Motivation and task engagement are thought to be two central components of positive academic self-concept (Byrne, 1996), others being self-efficacy and causal attribution.

A further and related factor to increased enhanced enjoyment and academic self-perception may have been the improved levels of interaction and quality of teacher feedback that the children experienced within a smaller teaching environment. Craven et al. (1991) provide guidelines for teachers designed specifically to improve pupil's academic self-concept, with recommendations focusing on the provision of praise relating to process, e.g. strategies and effort, rather than being contingent upon outcome, with the notion that previous personal attributions of failure can be unlearned giving rise to motivational properties which then promote task engagement rather than task avoidance. Good efficacy for this type of behaviour management has been demonstrated more broadly in educational settings (e.g. Harrop and Swinson, 2000; Swinson et al., 2004). This approach is also compatible with the

government's current 'personalised learning agenda' (Gilbert, 2007).

Alternatively, it may simply have been increased levels of adult attention that improved academic self-perception and enjoyment in the 'All Aboard' condition. Further research would be needed to provide a definitive explanatory account in that regard.

Finally, a critical finding from this study is that those children attending 'All Aboard' were perceived by staff as less socially included than children learning in the regular classroom environment. This suggests that withdrawal-based provision was not meeting the needs of the 'whole child' and with current policy guidelines emphasising a holistic approach to children's development and wellbeing (DfES, 2003), potentially at least, these findings have wider implications for staff and pupils at Greenbank Infant School.

The remainder of this report provides an account of the recommendations that were made to Greenbank Infant School with regard to future literacy provision / research. Before these are reviewed however, a number of methodological limitations of this study should be considered.

Limitations of this study

The sample size of both the 'All Aboard' and whole class teaching groups were small, thus restricting and limiting the statistical power of the ANOVA tests carried out in our study. Also, evaluations were carried out over a short

period only, i.e. 9 weeks. Given this context, it is fair to say that the results obtained should be viewed cautiously.

Fredrickson (2002), specifically in relation to literacy, draws attention to the importance of children enjoying and being fully motivated to engage with assessment tools. These factors were key considerations in designing the 'Mountain Task' to assess academic self-perception in this study.

Nonetheless, this chosen method presented some difficulties. Whilst the majority of children enjoyed and appeared fully to understand the assessment process in that regard, procedural instruction had to be reiterated a number of times for some of the children. This may have had direct implications in terms of the reliability of the 'mountain task' assessment and this should be borne in mind in viewing the findings. Also, the 'Mountain Task' was a newly devised test which had no established reliability or validity. Chapman and Turner's (1995) Reading Self Concept Scale, measuring primary aged children's attitude to reading, as well as perceptions of competence and difficulty with reading, is a well established test in terms of validity and reliability. Positive correlations of 0.8 and above have been obtained in terms of internal reliability of the scale (Cronbach's alpha). Using Chapman and Turner's (1995) Reading Self-concept Scale in conjunction with our 'Mountain Task' may have improved the reliability of the test results.

Whilst teacher's and teaching assistant's perceptions of social inclusiveness were obtained for all children, irrespective of the teaching condition that they were assigned, the teaching staff were aware which condition the children

were in. Given that there were tensions amongst the staff with regard to whether or not 'All aboard' was viable provision, staff ratings of 'social inclusion' may have been susceptible to bias, affecting the validity of these results. Obtaining the children's views also would have improved reliability in that regard.

Of note, initially it was hoped that I would obtain a more robust measure of 'social inclusion' via Fredrickson's (1994) 'Social Inclusion Survey' (SIS). Triangulating children's views with those obtained from the staff would have improved reliability in this respect. However, numerous logistical factors associated with this particular 'real world' research project meant that I was unable to obtain these additional measures. It is recommended that future research might benefit from factoring this type of assessment into the research design, though if further research is conducted with Year 2 children, age appropriateness of the test may need consideration, i.e. standardisation of the SIS in terms of reliability and construct validity was completed with children aged 7-12 years, whereas some Year 2 children may be only 6 years old.

Recommendations

In the context of children's services, systematically reviewing and utilising information from the research and theoretical databases in psychology is a distinctive contribution that educational psychologists make (Cameron, 2006), with the championing of evidence-based practice central and fundamental to

'high quality service' in that regard. With role of the educational psychologist currently undergoing change in terms of orientation towards more 'capacity building' type work, such evidence-based recommendations are typically framed within a backdrop of whole school change. Certainly 'capacity building' is at the forefront of the Birmingham Educational Psychology Service's school improvement agenda.

In this study, no difference in literacy attainment between conditions found and social inclusion was seen as less prevalent for 'All Aboard' children. This suggests that all Year 2 children might be taught literacy together, irrespective of level of need. Two recommendations with regard to how future literacy provision might be organised were put to the school's SMT during consultation. Both approaches are supported by a detailed and rigorous evidence-base.

Recommendation 1

MacKay's (1999; 2007) Dunbartonshire model provides a viable 'all inclusive' option. Whilst not all aspects of the approach might be readily and immediately available to the school, certainly there are some emerging elements of the local context that are amenable to a wider, joined-up community approach to literacy attainment. With current attainment levels in regular classrooms comparable to the 'All Aboard' provision, there can be little lost in providing only partial, though additional input in that regard.

Development an eco-systemic approach to literacy attainment might be seen as a 'long-term' goal for the school and area.

Early Years and the importance of speech and language as precursors to literacy attainment was one of the key focal areas of the Dunbartonshire Project (MacKay, 2007) and currently within the Greenbank school cluster there are interventions targeting speech and language development in young children (Wellman, 2009). Ongoing evaluation and sharing of 'good data' can only serve of benefit school provision in this regard.

Staff training in the development of effective direct instruction methods, in conjunction with brief group sessions for all children focusing on 'positive attitudes to reading', also appears workable, though where within the existing curriculum these groups might be factored in remains unclear. What is also less clear is the degree of parent involvement that would be forthcoming in the area. The school have previously expressed concerns in that respect, in terms of other areas of school-life in general. A Possible consultation session with local parents and parent groups can be used as a mechanism to check the viability of this provision.

Summary of recommendation 1

- All children should be taught literacy in the regular classroom setting.
- Sharing of 'good data' from ongoing speech and language projects within the cluster (children identified 'at risk' also to receive speech and language input in Year 1 if not in previous Early Years provision).
- Staff training in direct instruction methods
- Support with training and setting up of 'positive attitude to reading' groups.
- Consultation held with parents with aim of developing additional paired reading, Family Literacy support.
- Ongoing evaluation of teaching, community-based provision provided by EPS.

Recommendation 2

Solity's (2000) model, utilising evidence-based instructional principles, also offers a viable 'all inclusive' option. Whilst the school's SMT might be unnerved with the radical nature of this approach, given that it sits outside the confines of the NLS framework, other schools within the Birmingham Local Authority are currently using the approach. Visits to other schools could be arranged so that the SMT, teacher's and teaching assistants can see a 'working model'.

Summary of recommendation 2

- All children should be taught literacy in the regular classroom setting.
- INSET day informing staff of rationale and theoretical principles informing the new approach to be adopted.
- Staff visits to schools currently using the approach arranged.
- Rigorous training provided in terms of direct instruction methods.
- Ongoing evaluation throughout year 1 plus follow up.

Conclusion

The primary aim of this research project was to establish if 'regular classroom' or 'withdrawal based' provision better facilitated accelerated development of literacy skills for children identified as at-risk of reading failure. No evidence was found in this study to suggest that withdrawal-based provision was more beneficial, other than that of improving enjoyment and academic self perception.

Comparable attainment levels across both teaching conditions and teachers' seeing those children withdrawn as less socially included, informed the central and fundamental recommendations forwarded in consultation. Namely, that all children at Greenbank Infant School should be taught literacy in a regular learning environment. The school's dedicated and wholehearted orientations towards effective inclusive provision, paired with national policy context in

terms of meeting the needs of the whole child (DfES, 2003), were other critical informative factors in that regard.

The chief recommendations made in this report, were that Greenbank Infant School is bold in attempting to improve literacy attainment for its entire school population. MacKay's (1999, 2007) Dunbartonshire Project and Solity's (2002, 2008) Early Reading Research models were forwarded as potential frameworks in that respect. Whilst both primarily adopt an environmental focus, albeit with differing emphasises, these projects present their current successes within an ecologically valid research framework, which as has been shown, is a critical factor in terms of 'real world outcomes'.

References

Adams, M. J. (1990) *Beginning to Read: Thinking and learning About Print*.

Cambridge, Massachusetts: The MIT Press.

Anderson, J. R. (1990) *The Adaptive Character of Thought*. Hove: Lawrence Earlbaum Associates.

Baker, L., and Wigfield, A. (1999) Dimensions of children's motivation for reading and relations to reading activity and reading achievement, *Reading research Quarterly*, 34(4), 452-476.

Blachman B. A., Fletcher, J. M., Clonan, S. M., Scattzsneider, C., Francis, D. J., and Shaywitz, S. E. (2004) Effects of intensive reading remediation for second and third graders and at 1-year follow-up, *Journal of Educational Psychology*, 94(3), 444-461.

Black, P., and William, D. (1999) *Assessment for Learning: Beyond the Black Box*. Maidenhead: Open University Press.

Black, W., and William, D. (1998) *Inside the Black Box: Raising Standards through Classroom Assessment*. London: School of Education, King's College.

Bowey, J. A., and Francis, J. (1991) Phonological analysis as a function of age and exposure to reading instruction, *Applied Psycholinguistics*, 12, 91-121.

Brooks, G (2002) *What Works for Children with Literacy Difficulties: the Effectiveness of Intervention Scheme*. Department for Education and Skills. Research Report 380.

Brooks, G., Gorman, T.P., Harman, J., Hutchison, D. and Wilkin, A. (1996a). *Family Literacy Works: the NFER Evaluation of the Basic Skills Agency's Family Literacy Demonstration Programmes*. London: Basic Skills Agency.

Byrne, B., and Fielding-Barnsley, R. (1995). Evaluation of a program to teach phonemic awareness to young children: A 2- and 3-year follow-up and a new preschool trial. *Journal of Educational Psychology*, 87, 488–503.

Carnine, D., Silbert, J., and Kameenui, E. J. (1997) *Direct Instruction Reading*. New Jersey: Prentice Hall.

Chapman, J. W., and Tunmer, W. E. (1997) A Longitudinal study of beginning reading achievement and reading self-concept. *British Journal of Educational Psychology*, 67, 279-291.

Chapman, J. W., and Tunmer, W. E. (1995) 'Development of young children's reading self-concepts: an examination of emerging sub-components and their relationship with reading achievement', *Journal of Educational Psychology*, 87(1), 154-167.

Chapman, J. W., and Tunmer, W. E. (2003) Reading difficulties, reading-related self perceptions, and strategies for overcoming negative self beliefs, *Reading and Writing Quarterly*, 19(1), 5-24.

Chapman, J. W., and Tunmer, W. E., and Prochnow, J. E. (2000) Pre-reading skills, early reading performance, and the development of academic self-concept: A longitudinal study, *Journal of Educational Psychology*, 92, 703-708.

Clay, M (1990) 'The Reading Recovery programme, *New Zealand Journal of Educational Studies*, 25(1), 61-70.

Cox, T. & Jones, G. (1983). *Disadvantaged Eleven Year Olds*. Oxford: Pergamon Press.

Craven, R. G., Marsh, H. W., and Debus, R. L. (1991) Effects of internally focused feedback and attributional feedback on the enhancement of academic self-concept, *Journal of Educational Psychology*, 83, 177-187.

Department for Education and Employment (DfEE, 1998) *The National Literacy Strategy: Framework for Teaching*. London: DfEE Publications.

Department for Education and Skills (DfES, 2007) *Practice Guidance for the Early Years Foundation Stage*. London: DfES Publications.

Department for Education and Skills (DfES, 2006) *Primary Framework for Literacy and Mathematics*. London: DfES Publications.

Department for Education and Skills (DfES, 2003) *The National Literacy Strategy: Targeting support: choosing and implementing interventions for children with significant literacy difficulties*. London: DfES Publications.

Ehri, L. C., Nunes, S. R., Stahl, S. A., and Willows, D. M. (2001) Systematic phonics instruction helps students learn to read: evidence from the national reading panel's meta-analysis, *Review of Education Research*, 7(3), 393-447.

Engleman, S., and Carnine, D. (1982) *Theory of Instruction: Principles and Practice*. New York: Irvington.

Essen, J. & Wedge, P. (1982). *Continuities in Childhood Disadvantage*. London: Heinemann.

Foorman, B. R., Francis, D. J., Shaywitz, S. E., Shaywitz, B. A., & Fletcher, J. M. (1997). The case for early reading intervention. In B. A. Blachman (Ed.), *Foundations of Reading Acquisition and Dyslexia: Implications for early intervention*. Mahwah, NJ: Lawrence Erlbaum Associates.

Fredrickson, N (1994) The Social Inclusion Survey. In: *Social Skills and Emotional Development: Psychology in Education Portfolio*. Fredrickson, N., and Cameron, S. E. (1999).

Fullan, M. (1991) *The New Meaning of Educational Change*. London: Cassell.

Fullan, M. (2000) The Three stories of Education Reform. Online article, *Phi Delta Kappan*, 81(8) 1-6. at: <http://www.pdkintl.org/kappan/kful0004.htm>

Gilbert, C. (2007) *2020 Vision: The Report of the Teaching and Learning in 2020 Review Group*. DfES Publications. Nottingham: ISBN 978-1-8447-862-0

Goswami, U., and Bryant, P. (1990) *Phonological Skills and Learning to Read*. Hove UK: Lawrence Erlbaum Associates Limited.

Guthrie, J. T., and Wigfield, A. (2000) Engagement and motivation in reading. In: M. L. Kamil, P. D. Pearson and R. Barr (Eds.), *Handbook of Reading Research: Volume III*. Mahwah, NJ: Lawrence Erlbaum.

Harri-Augstein, S., and Thomas, L. (1994) *Learning Conversations*. London: Routledge Publications.

Harrop, A., and Swinson, J. (2000) natural rates of approval and disapproval in British infant, junior and secondary classrooms, *British Journal of Educational Psychology*, 70(4), 473-483.

Hatcher, P. J., Goetz, K., Snowling, M. J., Hulme, C., Gibbs, S., and Smith, G. (2006) Evidence for effectiveness of early literacy support programme, *British Journal of Educational Psychology*, 76, 351-367.

Hatcher, P. J., Hulme, C., and Ellis, A. W. (1994). Ameliorating early reading failure by integrating the teaching of reading and phonological skills: The phonological linkage hypothesis. *Child Development*, 65, 41–57.

Hatcher, P. J., Hulme, C., and Snowling, M. J. (2004) Explicit phoneme training combined with phonic reading instruction helps young children at risk of reading failure, *Journal of Child Psychology and Psychiatry*, 45(2), 338-358.

Johnson, R., and Watson, J. (2005) *The Effects of Synthetic Phonics Teaching of Reading and Spelling Attainment: a seven year longitudinal study*.

Online at: <http://www.scotland.gov.uk/Resource/Doc/36496/0023582.pdf> (accessed 2nd May 2009).

Knight, B. A. (1999) Towards inclusion of students with special educational needs in regular the classroom, *Support For Learning*, 14(1), 3-7.

Lingard, T. (2000) Is the national literacy strategy raising the achievement of low attainers? *British Journal of Special Education*, 27(3), 117-123.

MacKay, T. (2007) *Achieving The Vision: Final Report on the West Dunbartonshire Reading Initiative*. West Dunbartonshire Council.

MacKay, T (1995) Reading failure in an area of multiple social disadvantage: response of a psychological service to a school's priorities, *Educational and Child Psychology*, 16(1), 257-268.

McKenna, M. C., Kear, D. J., and Ellsworth, R. A. (1995) Children's attitudes toward reading: A national survey, *Reading Quarterly*, 30(4), 934-956.

McMillan, G., Fox, D., and Wood, K. (1994). Deprivation, early intervention and the prevention of reading difficulties. In *The Scottish Office Education Department Psychological Perspectives on Curriculum Development with Particular Reference to the 5-14 Programme*. Edinburgh: The Scottish Office Education Department.

Miller, C., Lacey, P., and Layton, L. (2003) Including children with special educational needs in the literacy hour: a continuing challenge, *British Journal of Special Education*, 30(1), 13-20.

Ofsted (2005) *Primary National Strategy: an Evaluation of its Impact in Primary Schools*. 2004/05 (HMI 2396).

Reynolds, D., Stringfield, S., and Schaffer, E. C. (2006) *Improving Secondary Students' Academic Achievement through a Focus on Reform Reliability: four and nine year findings from the High Reliability Schools project*. CfBT Education Trust.

Online at www.cfbt.com

Rose, J. (2006) *Independent Review of Teaching of Early Reading: Final Report*. London: Department for Education and Skills. London.

Rowe, K. (2005) *Teaching Reading: The Final Report of the National Inquiry into the Teaching of Literacy: On Behalf of the Australian Government*. Department of Education, Science and Training. Report ISBN 064277578 8.

Sadler, R. (1998) Formative assessment: revisiting the territory, *Assessment in Education*, 5(1), 77-84.

Sainsbury, M., and Schagen, I. (2004) Attitudes to reading at ages none and eleven, *Journal of Research in Reading*, 27(4), 373-386.

Sainsbury, M., Schagen, I., Whetton, C., Hagues, N., and Minnis, M. (1998) *Evaluation of the National Literacy Project: Cohort 1, 1996-98*. Berkshire: National Foundation for Educational Research.

Siraj-Blatchford, I., and Sylva, K. (2004) Researching Pedagogy in English Pre-schools, *British Educational Research Journal*, 30(5), 713-730.

Snow, C., Burns, S., and Griffin, P. (1998) *Preventing Reading Difficulties in Young Children*. Washington DC: National Academy Press.

Solity, J. (2003) *Teaching Phonics in Context: A Critique of the National Literacy Strategy*: A paper presented to DfES seminar 'Teaching Phonics in the National Literacy Strategy'.

Solity, J., Deavers, R., Kerfoot, S., Crane, G., and Cannon, K. (2000) The Early Reading Research: the impact of instructional psychology, *Educational Psychology in Practice*, 16, 109-129.

Solity, J., McNab, E., Vousden, J. I. (2009) *Is There an Optimal Level of Sight Vocabulary to Teach Beginning Readers? A development of Stuart et al's (2003) Word Frequency List*) KRM: Psychological and Educational Research Consultants (accessed through seminar held at University of Birmingham: Doctoral Training programme for Educational Psychologists - May 2009).

Solity, J., and Shapiro, L. R. (2008) Developing the practice of educational psychologists through theory and research. *Educational and Child Psychology*, 25(3), 123-149.

Solity, J., and Vousden, J.I. (2009). *Reading Schemes vs. Real Books: A new perspective from instructional psychology*. Submitted. (accessed through seminar held at University of Birmingham: Doctoral Training Programme for Educational Psychologists - May 2009.

Spear-Swerling, L., and Sternberg, R. J. (1994) The road not taken: an integrated theoretical model for reading disability, *Journal of Learning Disabilities*, 27, 917103, 122.

Topping, K.J. (2001). *Thinking Reading Writing. A Practical Guide to Paired Learning with Peers, Parents and Volunteers*. London and New York: Continuum, with accompanying website: www.dundee.ac.uk/psychology/TRW

Torgerson, C. J., Brooks, G., and Hall, J. (2006) *A Systematic Review of the Research Literature on the use of Phonics in the Teaching of Reading and Spelling*. Research Report RR711. DfES.

Treiman, R., and Zukowski, A. (1996) Children's sensitivity to syllables, onsets, rimes and phonemes, *Journal of Experimental Child Psychology*, 61, 193-215.

Troia, G. A. (1999) Phonological awareness intervention research: a critical review of experimental methodology, *Reading Research Quarterly*, 34(1), 28-52.

Tymms, P. (2004). Are standards rising in English primary schools? *British Educational Research journal*, 3(4), 477-494.

Tymms, P., and Merrell, C. (2007) *Standards and Quality in English Primary Schools Over Time: the national evidence*. (Primary Review Research Survey 4/1), Cambridge: University of Cambridge Faculty of Education.

Wall, K. (2003) Pupils with special needs and the National Literacy Strategy: and analysis of the literature, *Support For Learning*, 18(1), 35-45.

Wellman, S (2009) *Language Land: a localised cluster-based project developed by Birmingham Educational Psychology Service*. Unpublished. Birmingham City Council.

Wheldall, K., and Carter, M. (1996) Reconstructing behaviour analysis in education: A revised behavioural interactionist perspective for special education, *Educational Psychology*, 16, 121-140.

Whitehurst, G. J., Zevenbergen, A. A., Crone, D.A., Schultz, M. D., Velting, O.N., and Fischel, J. E. (1999) Outcomes of an emergent literacy intervention

from Head Start through second grade. *Journal of Educational Psychology*, 91, 261–272.

Wragg, E. C., Wragg, C. M., Haynes, G. S., and Chamberlin, R. P. (1998) *Improving Literacy in Primary School*. London: Routledge.

Wyse, D., and Goswami, U. (2008) Synthetic phonics and teaching of reading, *British Educational Research Journal*, 34(6), 691-710.

Professional Practice Report 5

**Promoting Pupils' On-task Behaviour through Positive
Interactions: Whole Class Intervention in a Year 4
Classroom**

**Postgraduate Professional Training Programme in Educational
Psychology: University of Birmingham**

Introduction

This Professional Practice Report (PPR) provides an account of a whole class intervention that took place with a Year 4 group, which according to the school's Class Teacher (CT) and Senior Management Team (SMT), was exhibiting high levels of disruptive / off-task behaviour. Primarily the intervention involved increasing levels of teacher praise, and particularly the use of descriptive praise with a focus on promoting pro-social behaviour, effort and strategy.

The paper begins by outlining the case study, followed by a brief account of how the research question was clarified. A rationale for the research design and methods used is then provided.

In conjunction with consultation, unstructured and structured approaches to observation were the chief methods of enquiry. Discussion focuses on the effectiveness of the intervention as well as the reliability of the observation approaches that were used in the classroom. The paper draws attention to the benefits of outside agencies using 'live data' to develop problem ownership in educational settings.

Case study outline

This case study was carried out in a Birmingham Primary School and involved an exploration of the factors contributing to low level disruption / off-task behaviour in a Year 4 classroom. Referral for my involvement initially came

via the Assistant Head Teacher of the school, who was also supported by the SENCo in this process.

The Year 4 class comprised 28 children (16 girls and 12 boys). Five of the children were registered at the school as having special educational needs (SEN), three of whom experienced general learning difficulties and two as what might be defined as sensory integration difficulties. In terms of ethnicity, all of the children were registered at the school as 'White British'.

The Year 4 class teacher (CT) had been at the school for approximately eight years, and had taught Year 4 groups for the past three years. The CT had been fully trained as a primary school teacher, i.e. Post Graduate Certificate in Education, and had also attended two further 'teacher improvement' courses since being at the school, this continued professional development being at the request of the school's Senior Management Team (SMT). No other teachers in the school had attended 'booster' teacher training courses. The Year 4 class received full time support from a qualified Teaching Assistant (TA) and typically TA provision focused on meeting the additional needs of the five children identified as having SEN.

Formulating the research problem / question

Consultation was held with the school's Assistant Head Teacher and SENCo in order to negotiate the research problem. Establishing the actual purposes of the research proved difficult in terms of what was wanted, and for what

ends. A common difficulty encountered by Educational Psychologists (EP) in relation to their general practice, is that service users often fail to specify exactly what they require from the EP Service. Problem analysis frameworks (PAF) can be used in order to remedy this, and in this instance Phase 1 of the Woolfson et al. (2003) PAF was utilised to clarify the specific nature of the work to be undertaken (see Appendix 1). This important first phase of the model entails laying the groundwork for effective problem solving relationships by clarifying and negotiating problem owners' roles, expectations and desired outcomes. Collaboratively identifying who other stakeholders might be and negotiating roles and expectations with them are key parts of Phase 1 of the model.

Utilising Phase 1 of the Woolfson et al. (2003) model helped to establish not only the appropriateness of my own involvement, but also clarify and concretise the actual research question and method of inquiry. For research to be effective it is crucial that research questions reflect the overall aims of the research (Cohen and Manion, 2000), though it should be noted that at this stage of the consultation research questions were formative only, particularly given that at this stage the CT was not yet involved.

The lack of involvement of the CT during previous attempts at problem formulation emerged as a critical factor during consultation. Previously, solutions to low-level disruption in the Year 4 classroom had been provided via various compulsory professional development courses handed down to the CT by the SMT. In the main, course content had comprised improving

differentiation and contingency management procedure. The Assistant Head, SENCo, and myself, were all in agreement that this 'donation' might have been a significant contributory factor in terms of the failure of early attempts at improving perceived difficulties in the Year 4 classroom, both for the CT and the children.

At this point the CT was invited into consultation and it became evident that there were existing tensions between the SMT and the CT with regard to previous attempts at intervention. The CT said little in consultation other than to conceptualise Year 4 classroom difficulties, not as low-level disruption, but as 'off-task behaviour'. The CT also informed me that she thought at least half the class had Attention-deficit hyperactivity disorder.

It was agreed in consultation by all parties that I would carry out observations in the Year 4 classroom in order to obtain a fresh view of the reported difficulties, and that problem formulation and interventions design would then be conducted collaboratively between myself and the CT only. The Assistant Head and SENCo would not be involved in this process. The agreed focus area for my involvement at this stage of the case work was:

'To explore the nature of the classroom dynamics of Year 4 classroom through observation and consultation with the CT, and to collaboratively devise strategies that could be used to reduce low level disruption / off task behaviour for this year group / classroom.'

The next section of this report provides an outline of the observation strategies used in gathering data, along with supporting rationale for the approaches taken.

Design

Observation instruments were utilised as research tools in this case study and a number of factors deemed this method of investigation appropriate. Firstly, observation provides the opportunity to gather 'live' data (Cohen et al., 2007). This was particularly necessary given that staff's views as to the specific nature of the factors that were contributing to low-level disruption in Year 4 differed greatly between those consulted, namely, the Assistant Head, SENCo, and the CT. In discussing solution focused approaches, Rhodes (1993) notes how teachers often get lost within the midst of their own problems. On a similar note, Fullan's (1999; 2000) work emphasises the value of using outside agencies in promoting change within schools.

Secondly, direct observation minimises social desirability response biases (Irwin and Bushnell, 1980). As Robson (2002 p. 310) points out, 'what people do may differ from what they say they do'. Even with social desirability factors consciously set aside, Wiess (2002), from a psychodynamic perspective, asserts how teachers often develop unconscious defence mechanisms as a means of coping with the everyday stresses of teaching, mechanisms that can potentially cloud the visibility of solutions to problems.

Finally, observations were deemed appropriate as the practicalities of method were suited to the school. Observations do not require the school to provide the researcher with supporting resource and they can also be carried out relatively quickly and unobtrusively in comparison to other methods such as interviews (Cohen et al., 2007).

Unstructured observations

Initially, I used an unstructured approach to observation. Several factors impacted this decision. The fact that the research question remained very broad during the early stages of the research process justified an inductive approach at the outset. Initially, an assessment of context was needed before I could formulate a keener focus with regard to establishing the specific contributory factors and the subsequent intervention strategies to be devised. Flexibility in relation to the type of data needed was therefore necessary during the early stages of inquiry. Furthermore, it would be the CT and the children themselves who would eventually be working with the strategies devised. Ownership facilitates responsibility and the likelihood of success (McNamara, 1993). In this respect, there seemed little point in solely donating mine, or any related professionals value system via a structured format. Time was also a factor. Cohen et al. (2000 p. 75) refer to this type of consideration as a 'strategic decision'. Had I gone into the classroom with a set of predetermined constructs that were unsuitable, I did not have the luxury of spending additional time revisiting the classroom. The practicalities of 'real world research' forced me to consider time constraints.

Observation as a method of inquiry is widely used in social research. Although approaches to observation differ in terms of their epistemological foundations, regardless of type, methods that are adopted are subject to scrutiny in terms of their validity and reliability. As such, all observation mechanisms used, need to be done so thoroughly and robustly in order to preserve the credibility of the research undertaken.

Observations were overt in this instance. Mitchell (1993) argues that covert research might be necessary to gain access to groups who are marginalise or stigmatised, suggesting that there may be a reluctance to permit the presence of the researcher. Given that this was a mainstream school, I saw no justification in violating the principle of informed consent (SIG, 2001).

However, overt observations hold certain caveats. Participants' behaviour can change once they are aware that they are being observed. For example, participants might become anxious and behaviour may improve or worsen as a consequence. Shaughnessy, Zechmeister and Zechmeister (2003) refer to these responses as 'reactivity effects' and my initial focus as observations commenced was to minimise my own potential 'observer as participant' influences. I attempted to achieve this through sketching the layout of the classroom, focusing only on the actual physical layout of the room. It was reasoned that this strategy would allow the children to get used to my presence and to feel more relaxed given that my gaze, and subsequent notes, were not focusing on the children themselves. Also, sketching the contents of the room required little cognitive resource on my part, and I took this

opportunity to immerse myself within the context presented so that key issues might emerge.

Cohen et al. (2000) suggests that observation data should cover four aspects of context. Table 1 illustrates the suggested 'settings' and provides working examples of my own focus in relation to each of these areas.

Table 1:

Cohen et al. (2000) 'Aspects of Context'	Examples of data obtained
<ul style="list-style-type: none">Physical setting	<ul style="list-style-type: none">Sketch of classroom environment, i.e. table layout
<ul style="list-style-type: none">Human setting	<ul style="list-style-type: none">Position of CT and additional resource allocation (TA), and seating plan.Children identified as having SEN on 1 table at side.TA positioned next to SEN table
<ul style="list-style-type: none">Interaction setting	<ul style="list-style-type: none">CT leaves children without a task focus whilst she checks her files (approximately 3 minutes)."Why are you not working" (CT shouting at whole class / reprimanding individual children).Numerous children have to look sideways in order to see the White Board.
<ul style="list-style-type: none">Programme setting	<ul style="list-style-type: none">Primary mode of delivery was didactic

Field notes may be recorded in a variety of forms, such as narratives, bullet points, key words and symbols (Slee, 1987) and during the unstructured

observations I used all of these measures, fluctuating between recording styles.

However, whilst undoubtedly the major strength of unstructured observation is the ability to accommodate context the key limitation, some would argue, relates to subjectivity, or conversely, a lack of objectivity (e.g. Stainton Rogers, 1996). As Heidegger suggests (Nagel, 1998 p. 22), each researcher brings to the table their own experiences, specific understandings and historical background and it is this 'situated-ness' (Gadamer, 1975 in Usher, 1996 p. 28) that, when left unbridled and without a guiding, structured format, can cause concerns with regard to the validity and reliability of unstructured data (Cohen et al., 2007).

Reliability might be improved via assessment of levels of inter-observer agreement, although it was not feasible in this case to use additional researchers. Le Compte and Goetz (1982) suggest the use of audio visual recording equipment as a means of overcoming individual researcher bias and improving reliability, although caution needs to be applied in relation to potentially increasing reactivity effects via indirect means (Robson, 2002).

Yet arguably, in this case, an unstructured approach was wholly justifiable, and largely on the grounds that it was part of a mixed design. The focus and function of the unstructured approach was *progressive*, and in this sense I was permitted to 'roam free' in my attempts to absorb and capture the context of the classroom, and the reported low-level disruption / off-task behaviour.

The best and most tangible example of the benefits of this freedom can be seen in what might be described as a 'critical incident.' Banister et al. (1994) refers to these as incidents that typify and illuminate the context within which the researcher finds themselves, of the teachers behaviour or teaching style for example (Wragg, 1994).

At one point towards the latter end of my unstructured observations, the CT addressed the whole class and informed them that they would now miss five minutes 'golden time' (allocated free-time for student's where they can choose their own activities) on Friday due to them not engaging sufficiently with the task that had been set. This directive was delivered by the CT in a raised and somewhat aggressive tone, and the response from many of the children in the class appeared to be one of dislike and a distinct lack of respect for the CT.

For me as a researcher, this one incident could be seen as representative of the classroom behaviour management style that the CT had adopted with the Year 4 group, and in that respect, it was indicative of the overall classroom context. During observation I had made several notes of other incidents relating to contingency management that assumed a 'negative' rather than positive focus.

Further consultation was now held with the CT

Process consultation models (Schein, 1987) orientate towards the consultee, and in that sense it is they who are seen as the central resource in terms of

what might be referred to as 'collaborative and exploratory problem solving process'. It focuses on helping the consultee conceptualise the associated 'difficulties' so that they can be helped to generate and select (sometimes from those offered by the consultant) any related solutions / interventions. Facilitation and development of ownership is a chief function of the process orientated consultancy model (Schein, 1987), so that in theory, interventions / solutions emergent from consultation are likely to be more fully engaged with following the consultation process. A process model of consultation (Schein, 1987) was adopted in this instance with the CT.

I suggested the idea that over-use of punishment might be having a negative affect, not only on the children's relationships with the CT, but also on-task / low level disruptive behaviour. The CT was in agreement with this and also stated that she had little opportunity to adopt a positive focus with the children as they were continuously disruptive and needed contingency management procedures to remedy that. At this point during consultation the CT became upset and self-deprecating, stating that she just didn't have the skills to manage the class.

Both the CT and myself were of the view that a 'positive behaviour management approach' might help resolve the difficulties evident within the Year 4 classroom and it was agreed in consultation that I would review the appropriate evidence-base.

Pro-active behaviour management

Standard behaviour management training on teacher training courses, i.e. Postgraduate Certificates in Education (PGCE), typically comprise making classroom rules clear, giving praise and attention to appropriate behaviours, and ignoring unwanted behaviours (Cockburn and Handscombe, 2006). Research over the past 40 years or more consistently demonstrates that when teachers have been able to increase frequency of praise this has led to an increase in pupil's rates of on-task behaviour, whereas criticism has not been found to be an effective strategy (e.g. Madsen et al., 1968; White, 1975; Apter et al., 2008).

Nonetheless, studies show praise is often under-utilised in the classrooms and frequently delivered at rates unlikely to affect behaviour (e.g. Brophy, 1981; Ouston, 1979; White, 1975). A common and consistent pattern found in terms of teachers feedback, is that teachers tend to praise academic work more than they praise social behaviour and criticise social behaviour more than academic work (White, 1975; Harrop and Swinson, 2000). The general argument forwarded by many educationalists is that teachers often fail to exploit attributional messages to maximum effect (Chalk and Bizo, 2004; Thompson, 1997; Swinson and Harrop, 2005). For example, Blumenfeld et al. (1983) found less than 1% of communications in the classroom consisted of attributional feedback and that these were generally procedural, reactive and negative to children's behaviour, rather than providing information to the child about why their behaviour was not appropriate.

Chalk and Bizo (2004) carried out a study aimed at increasing on task behaviour in the classroom through improving the quality of attributional feedback. The study involved four primary school teachers, two of whom were instructed to use positive praise in their classrooms, and two specific praise. Positive praise refers to an expression of positive affect or approval about behaviour, whereas specific praise expresses positive affect but also contextualises behaviour, i.e. precisely states / describes the praised behaviour, possibly discussing effort or strategy (Kamins and Dweck, 1999).

Ratings of on task behaviour increased for both conditions following training in Chalk and Bizo's (2004) study. However, at a second follow up observation, while on task behaviour continued to increase in the 'specific praise' condition, it appeared to reach a plateau in the 'praise' condition. Other benefits were also found. Academic self concept scores, as measured by Burden's 'Myself as a Learner Scale' (MALS, Burden, 1999), increased significantly for the pupils in the 'specific praise' condition.

Though this was a relatively small scale study by Chalk and Bizo (2004), methodology is robust. Teacher and pupil ratings of on task behaviour and teacher feedback were triangulated with observation data, and two independent observers rated classroom activity. Inter-rater reliability scores averaged out at 97% across the observed sessions, and Meritt and Wheldall's (1986) Observing Pupil's and Teacher's in Classrooms (OPTIC) schedule, which was used in the study, demonstrates good reliability.

Training packages

A number of training packages have been developed to assist teachers in increasing levels of praise to promote positive behaviour in the classroom, for example, Canter's Assertive Discipline Programme (Ferguson and Houghton, 1992) and Batpack (Wheldall, 1985). However, training time for these programmes is typically 6 hours or more, which can pose difficulties for staff and senior management teams in schools where professional development time is often scarce (Cockburn and Hanscombe, 2006).

Swinson and Harrop (2005) developed a training package that aimed to increase on-task behaviour following only a 2 hour training session. Training involved general principles of effective behaviour management, i.e. displaying classroom rules and expectations and the use of praise and ignoring (Madsen et al., 1968; White, 1975), and more specifically, a focus on using specific praise (Chalk and Bizo, 2004) and increasing praise for social behaviour. This later foci draws from a large study by Apter et al. (2008) involving more than 140 classroom where greater levels of on task behaviour was found through use of positive comments relating to academic work *and behaviour*.

Nineteen teachers from 6 primary and 3 secondary schools took part in Swinson and Harrop's (2005) study. Teachers' verbal feedback was recorded for approval / disapproval contingent upon appropriate behaviour, whether the approval/disapproval was given for academic or social behaviour, whether it was given to individuals or groups, and whether it was accompanied by a

description and whether the pupils were named. On task / of task behaviours were recorded through observation using a momentary time-sampling approach, i.e. 10 second intervals. Teacher training comprised two main elements, feedback to the teachers based on a preliminary analysis of the pre-training lessons, and a Power-Point presentation 'Managing behaviour—four essential steps'.

Four principles / factors underpin Swinson and Harrop's (2005) approach.

Table 1 provides a list of these principles / factors accompanied by the intended outcomes of the training package.

Table 1: Evidence base and intended outcomes from Swinson and Harrop's (2005) 2 hour intervention focusing on increasing on-task behaviour

Factors / principles underpinning approach	Aims / focus of teacher training package
<ul style="list-style-type: none"> Greater levels of on-task behaviour correlate positively with increased rates of teacher praise (e.g. Apter et al., 2008). 	<ul style="list-style-type: none"> To improve rates of teacher praise.
<ul style="list-style-type: none"> Teachers tend to praise academic work more than they praise social behaviours, and criticise pupil's social behaviours more than they criticise academic work (White, 1975; Harrop and Swinson, 2000). 	<ul style="list-style-type: none"> To increase rates of teacher praise, particularly with regard to social behaviour and decrease rates of criticism.
<ul style="list-style-type: none"> That specific praise, i.e. praise contextualising the behaviour and precisely describing the behaviour, produces higher levels of on-task behaviour than does general praise, i.e. non-descript praise (Chalk and Bizo, 2004; Kamins and Dweck, 1999). 	<ul style="list-style-type: none"> To increase the rates of specific praise.
<ul style="list-style-type: none"> That specific praise is more effective when directed at effort and / or strategy rather than outcome (Black and Williams, 1999; Kamins and Dweck, 1999; Mueller and Dweck, 1998). 	<ul style="list-style-type: none"> To increase the rates of praise that focuses on effort and strategy.

Outcomes from Swinson and Harrop's (2005) training package were impressive, with the study showing that relatively short training packages in behaviour management can be effective in schools in increasing frequency of on task behaviour. On task behaviour was found to have increased significantly in all classrooms whose teachers took part in the study. These findings support those of Chalk and Bizo (2004) in relation to specific praise, and other studies in terms of directing praise towards social behaviour (White, 1975; Harrop and Swinson, 2000) and effort and strategy (Black and Williams, 1999; Kamins and Dweck, 1999; Mueller and Dweck, 1998).

Further consultation with the CT: adopting Swinson and Harrop's (2005) approach

Birmingham Educational Psychology Service (EPS) employs the equivalent of 52 full-time psychologists and one of the advantages of working within a large EPS is that there are a number of 'off the shelf' resources that can be accessed by practitioners. A range of resources have been developed in the Service to help schools improve behaviour and one of the packages available aims to improve on-task behaviour through positive interactions within the classroom, i.e. use of teacher praise. The training package developed at Birmingham is based on Swinson and Harrop's (2005) intervention.

At the next consultation meeting with the CT I suggested that the Birmingham package might be used to address the research question. The CT was in

agreement with this and an outline of the approach to be used was provided.

This would involve:

- Classroom observation focusing on levels / frequency of on-task behaviour and teacher feedback and type of teacher feedback.
- A 1 hour training session in pro-active behaviour management strategies (praise), including comparisons of live data to previous research findings.
- Post-observations.
- Formative feedback to CT of the intervention effects.

Agreed aims of the project were as follows:

- 1) To increase the rates of teacher praise, particularly in relation to pro-social behaviour.
- 2) To increase use of specific praise.
- 3) To increase levels of on-task behaviour.

Intervention

Ethical consideration:

In accordance with key principles outlined in the British Psychological Society's Code of Ethics (BPS, 2006), informed consent was obtained from all parents of children in the Year 4 class. Parents / children were also informed

that all data would remain anonymous and that parties had the right to withdraw from the study at any point.

The CT was informed pre-intervention that observations would focus on 'classroom interaction'. The CT was not informed of the specific detail of the observation criteria which observation would focus at this time in order to minimise potential demand effects (Robson, 2000) prior to intervention.

Whilst the British Psychological Society (BPS) guidelines direct practitioners to avoid deception where possible, there is recognition within those guidelines that withholding information from participants during the research process is permissible if this better facilitates the overall aims of the project (BPS, 2006). In accordance with the BPS (2006), the central principle guiding practitioners should be the reaction of participants once deception is revealed. If it is envisaged that deception might lead to discomfort, anger or objections from the participant(s), then it should be avoided (BPS, 2006). In this study I did not surmise that withholding information in relation to 'descriptive feedback' would disturb or affect the dignity of the CT in any way, and so partial disclosure at the pre intervention stage seemed appropriate.

Observations:

Pre and post intervention observations involved recording levels of pupils' on and off-task behaviour (see appendix 2 for off task activity codes), and type of teacher feedback given, i.e. whether teacher comments related to academic

work or behaviour (positive and negative), and whether they were specific (descriptive) or not (see appendix 3 for data recording sheet). Here, the Classroom Interactions Observations Schedule (CIOS) was used. This CIOS was developed at the Birmingham EPS and is adapted from Apter et al's (2008) Mobs Research Project Schedule (MRPS). The MRPS has shown good reliability in previous studies (Apter et al., 2008).

The CIOS involved event sampling, i.e. recording each time a specified behaviour occurs. The key advantage here is that a schedule can provide a clear indicator of the type and frequency of the behaviour across any given time scale (Hopkins, 2002; Powel et al., 1975). Behaviour was recorded in a simple tally chart format.

Observations focused on six randomly selected children in the classroom. Three were observed for the first half-hour of a Personal, Social and Health Education (PSHE) teaching session, and three for the second half. Three of the children were observed for 20 seconds each. This was followed by a 1 minute observation of the CT. Follow up observations were carried out six weeks after the initial observations took place and approximately four weeks after the skill development sessions. Post intervention observations were again completed in a PSHE session. The behaviour patterns of the children observed in both these teaching sessions can be seen in the results section of this paper.

Skill development session with CT:

The skill development session with the CT lasted approximately 1.5 hours.

The session involved two elements which were firstly, presenting the CT with series of Power Point slides (see appendix 4), and secondly completion of a targets setting activity in relation to 'descriptive praise statements'. The Power Point presentation covered:

- Types of teacher praise and criticism, and general trends from previous studies.
- Comparing the CT's 'live data' to those trends and emphasising similarities.
- Discussion in relation to specific praise focusing on effort and strategy, including examples.
- Coverage / discussion of other general principles to improve on-task behaviours which were: make instructions clear, look for those pupils complying and praise them, and more frequently acknowledge those who are doing what is required in the classroom.

The 'Fair Pairs' descriptive praise target setting activity involved:

- The CT identifying off-task behaviour that she wished to minimise / extinguish within the classroom, i.e. 'don't likes'
- The CT identifying alternatives to those behaviours, i.e. 'likes'.
- The CT prioritising 3 behaviours to focus the intervention on and develop specific descriptive statement relating to those focus areas.

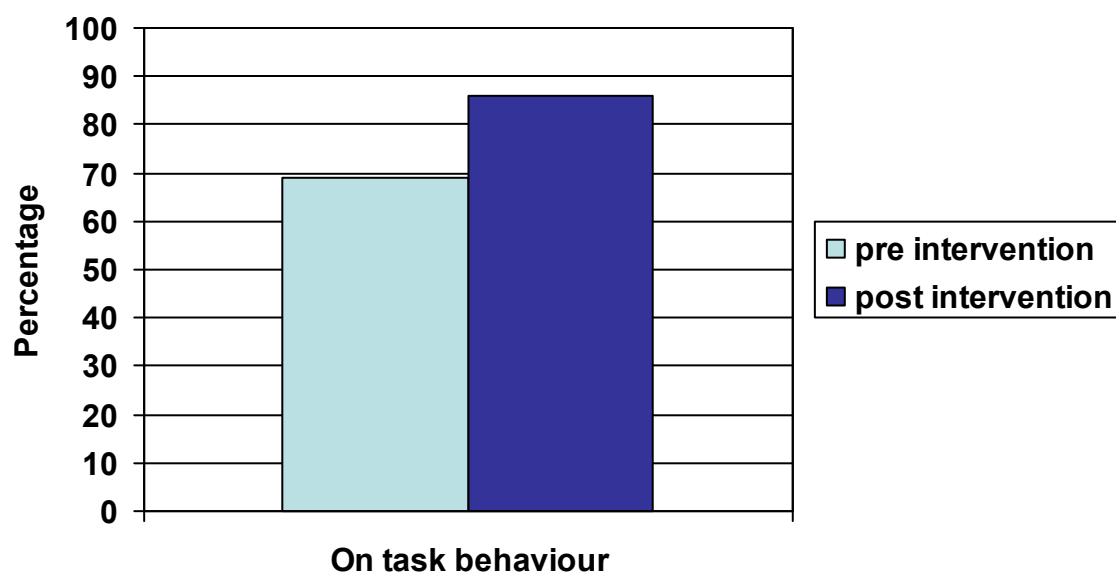
Opposites of the 'like to see' statements that were identified by the CT are listed below and can be seen in brackets. The 3 descriptive 'like to see' statements devised during the skill development session were:

- “x’ / Year 4 well done, I can see you are concentrating on the task set / your work” (in preference to general unfocused task behaviour).
- “x / Year 4 that’s excellent, I like the way that you are interacting / communicating with ‘x’ / each other / me (in preference to shouting out / talking over others).
- ‘x’ / year 4 well done, I can see that you are taking your time and working hard to think carefully about how to do this, that’s good (in preference to task avoidance / rushing work / not attending to detail / giving up).

Results

Levels of on-task behaviour at pre and post intervention can be seen below in Figure 1. Frequency is presented in percentage format for easy reference.

Figure 1: Recorded on-task behaviour for 6 children in Year 4



Tables 1 and 2, and Figures 2 and 3 below, show the trends in the type of teacher feedback given in the Year 4 classroom. Increases in on-task behaviour correlate with increases in praise for academic and social behaviour, including descriptive praise, and a decrease in criticism for social behaviour.

Table 1: Type of teacher feedback given in the classroom pre intervention.

Pre intervention observations		
Type of Feedback	Academic work	Social behaviour
Positive (praise)	23 % (7% = descriptive)	5% (2% = descriptive)
Negative (criticism)	9%	63%

Table 2: Type of teacher feedback given in the classroom post intervention.

Post intervention observations		
Type of Feedback	Academic work	Social behaviour
Positive (praise)	44% (9 % = descriptive)	23% (13% = descriptive)
Negative (criticism)	10%	22%

Figure 2 below shows type of teacher feedback given in the classroom pre and post intervention:

Figure 2

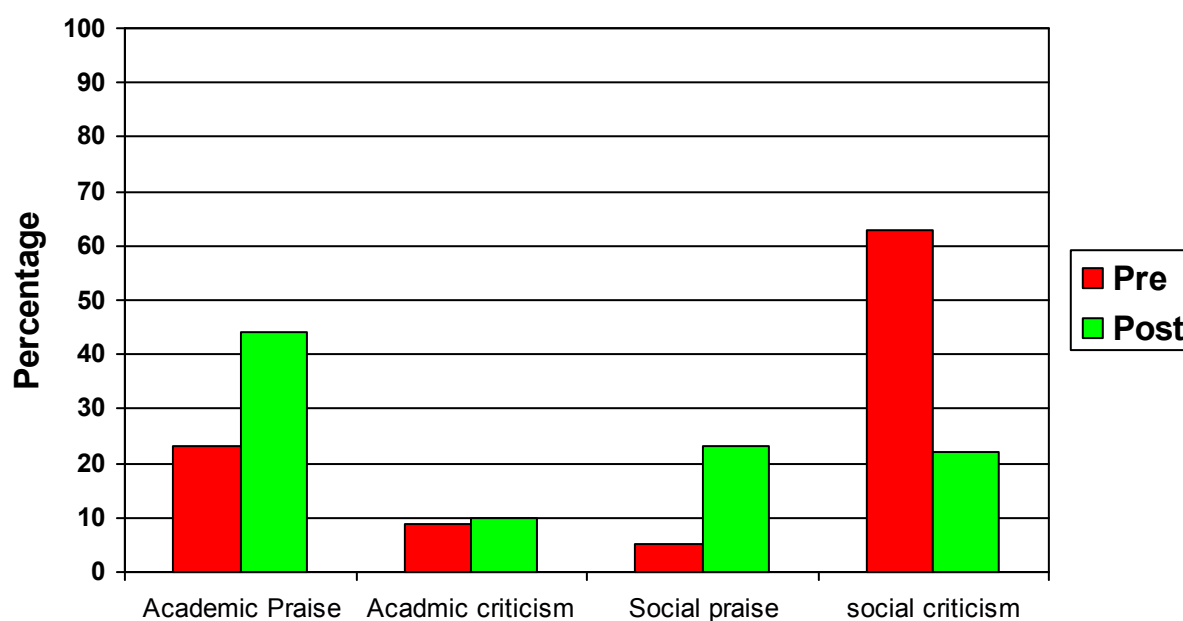
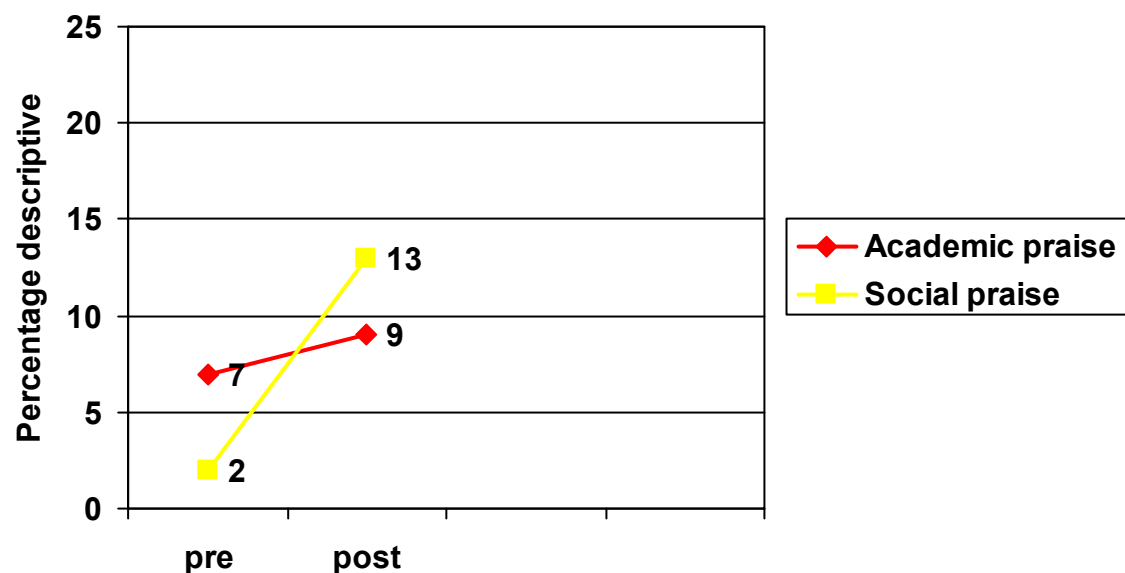


Figure 3 shows percentage of descriptive praise used by the CT at pre and post intervention

Figure 3



Discussion

As hypothesised, findings from this study demonstrate that increasing levels of praise, descriptive praise relating to effort, strategy and social behaviours, and decreasing frequency of criticism, increases levels of on-task behaviour within the classroom. These findings, showing a general shift from negative to a positive focus in terms of teacher feedback, are consistent with those of Swinson and Harrop (2005) and the related studies from which their research draws (Apter et al., 2008; Chalk and Bizo, 2004; Kamins and Dweck, 1999; Mueller and Dweck, 1998). A number of factors contributing to the success of

the intervention will now be outlined. This will be followed by discussion of some of the limitations of the study, before the paper concludes.

Factors contributing to success

A simple approach: Contingency management approaches can be categorised into two types of interventions. There are those that predominantly adopt a negative focus, which are typically used to decrease or terminate inappropriate behaviour, i.e. through time-out, response cost, or other forms of punishment. Conversely, there are those that attempt to increase appropriate behaviour. With the exception of negative reinforcement strategies, these are largely positive in orientation. Shaping, contingency contracting and the use of token-economy systems, i.e. sticker charts, are common strategies used by teachers in that regard (e.g. Ayers et al., 2000).

A criticism made of contingency procedures is that they can be difficult to implement consistently and effectively in 'busy classroom environments'. A study by Pugach (1990), for example, reports that teachers often find demands placed on them to use a range of contingency procedures as 'unreasonable'. Merrit and Wheldall (1993) interviewed 176 secondary school teachers and report nearly three quarters of them as dissatisfied with teacher training in relation to contingency management.

The presenting research context in this study was similar to those finding obtained in Pugach's (1990) and Merrit and Wheldall's (1993) studies, and in

that respect I needed to identify a straightforward but effective positive behaviour management strategy that was manageable for the CT, particularly given her elevated levels of stress. The use of verbal praise offered an effective positive reinforcement strategy that the CT might use without getting bogged down in overcomplicated procedures. Cameron and Pierce (1994) found verbal praise to have a greater impact in terms of increasing pupil motivation than either tangible reward or no reward. Numerous other studies have also demonstrated the use of praise by the CT as an effective classroom management strategy (Hayes et al., 2007; Wheldall, Houghton and Merrett, 1989; Wheldall and Merrett 1985; Wheldall, Merrett and Borg, 1985). Using a clear and straightforward approach to behaviour management was a key aspect in terms of the success of this intervention. Using an approach that illustrated to the CT the need to use more descriptive praise within the classroom had a positive effect in terms of firstly, increasing descriptive praise, but also generally in increasing praise and lessening criticism within the classroom.

Use of existing resources: Praise was a management strategy that the CT was already utilising and in that respect, an approach drawing on positive psychology (Seligman and Csikszentmihalyi, 2000) proved effective as well as economical. Using client's existing resources not only has a good evidence base, for example Gingerich and Eisengart (2000) review the solution-focused literature and identify 15 controlled studies providing empirical support for solution-focused approaches in a range of settings, but it also facilitates 'brisk' training processes, i.e. training procedures and processes are less lengthy

than they would be if introducing new / previously unknown behaviour management strategies. Whilst solution-focused techniques (e.g. de Shazer, 1985) were not explicitly drawn on in terms of developing strategies to promote on-task behaviour, principles underpinning the theoretical orientation of positive psychology (Seligman and Csikszentmihalyi, 2000) were important to the success of this intervention. The 'Skill Development' session completed with the CT lasted only 1.5 hours.

Identification of specific management strategies: Various publications recommend strategies that teachers can use to foster the right 'goal climate' for their pupils (e.g. Black and William, 1999; DfES, 2003). However, comprehensive government-funded studies report that many teachers have little or no idea how to implement new and recommended strategies, and that often they lack the motivation to try (Neesom, 2000). Black and William (1998) refer to the notion of teacher resistance and/or reluctance from their observations of numerous primary and secondary classrooms:

"Teachers will not take up attractive sounding ideas, albeit based on extensive research, if these are presented as general principles which leave entirely to them the task of translating them into everyday practice – their classroom lives are too busy and too fragile for this to be possible for all but an outstanding few. What they need is a variety of living examples of implementation, by teachers with whom they can identify and from whom they can both derive conviction and confidence that they can do better, and see concrete examples of what doing better means in practice".

(Black and William, 1998 pp. 15-16)

Developing and definitively identifying the three specific 'descriptive praise statements' with the CT during the brief training period proved vital to the success of this study, and the CT reported this during feedback of the post observation data. She also remarked that this approach had helped her to develop initial confidence in using proactive management strategies, which had in-turn led to her using these principles more generically within the classroom. During observations it was noted that the CT used additional 'descriptive statements' to focus the children's behaviour towards on-task classroom activity. This had also had a positive impact on the classroom in helping convey to the children what was expected of them.

Empowerment and motivation: Following intervention the CT reported that Many of the children within the classroom appeared more engaged and enthusiastic about their work than they did pre intervention. Meta-analytic reviews have shown that praise tends to increase motivation across a variety of dependant measures (Cameron and pierce, 1994; Henderlong and Lepper, 2002) and in particular praise relating to process orientated factors such as effort, strategy, self-corrections and concentration, is though to improve intrinsic motivation in young people (e.g. Black and William, 1999; Kamis and Dweck, 1999). Autonomy and self-efficacy have been consistently associated with intrinsic motivation (e.g. Assor, 2002; Grolnick et al., 1991; Grolnick and Ryan, 1989), and whilst no direct measures of these motivational properties / factors were obtained in the study, it is posited here that as a result of the CT's applied 'process oriented praise', on-task behaviour was increased indirectly through enhanced motivational factors generated within young

people in the classroom. It is likely that the effects of both praise and motivational properties were reciprocal for these children. A central tenet of attribution theory (Weiner, 1985) is that people search for the causes of achievement outcomes and that these causal inferences guide subsequent behaviour and emotional reactions towards future behaviours.

Methodological factors: By definition, the behaviourist paradigm allows for human factors to be reduced down into manageable and quantifiable units (Slee, 1987). Applied Behaviour Analysis, widely used in education (Ayers, Clarke and Murray, 2000), is based on the principles of assessing the effectiveness of operant conditioning (Skinner, 1993) in any given setting.

Objectivity is the underlying fundamental principle of structured observation (Irwin and Bushnell, 1980; Slee, 1987). The *apriori* specification of variables allows for a systematic and manageable approach to data collection and in this respect, clear and unobtrusive measures can be obtained by the researcher. In positivist terms, the data therefore remain uncontaminated as a result of the passive research process. Moreover, replicability, and subsequently, reliability become less of an issue for the researcher adopting this approach (Robson, 2002).

The data I obtained from the predetermined schedules was useful. It demonstrated trends in behaviour and this data was shared with the CT. The CT found this 'hard data' clear and easy to understand and in that respect it facilitated promoting change within the classroom. Research has shown that

where causality is not identified, teacher attitudes and behaviours are less open to modification and change as a result of discussions with external professionals (Miller, 2003; Miller, Ferguson and Moore, 2002).

Limitations of the study

The off-task coding schedule: Though a structured approach to observation had its advantages, there were also aspects of the approach that were problematic. Whilst event sampling as a mechanism is a valuable tool in that it clearly has the capacity to demonstrate trends in behaviour (Wragg, 1994; Slee, 1987), the mechanism itself can be difficult to operate when the behaviours to be recorded are complex and /or numerous (Cohen et al., 2007). In my case, the adopted CIOS schedule had nine different types off-task behaviour to record.

Some of the specified events on the schedule, such as 'inappropriate out of seat behaviour', 'disturbing other pupils' and 'non task related communication with peers' differed, but only slightly. Although positive and negative events were easy to differentiate, trying to attend to the subtle differences and the specifics of behaviours whilst in the midst of a busy classroom environment proved difficult and in this respect, and at least in the true spirit in which this particular schedule was intended, the event sampling that was done here remained problematic.

Cohen et al. (2007) draw attention to the importance of piloting observation schedules prior to their use and this can be seen as serving two related functions. Firstly, it allows the researcher to practice the observation and to become more familiar with the recording criteria with which they are to adhere to. Practice in my instance would certainly have proved beneficial. Secondly, piloting allows the researcher to accurately assess whether or not the event criteria included is 'fit for purpose'. By that I refer to; are the criteria too numerous, are they differentiated appropriately in terms of overlap, and / or are they too complex (Dyer, 1995). All of these factors when considered have the potential to improve reliability and in hindsight, in my case, these factors might have been considered more closely.

Conclusion

Behavioural interventions based on the principles of operant conditioning (Skinner, 1993) are widely used within schools (e.g. Ayers et al., 2000) and numerous controlled studies demonstrate good outcomes in terms of improving behaviour in that regard (e.g. White, 1975; Merrit and Wheldall, 1987; Robinson, et al., 1981; Rosen et al., 1984). In this study, a pro-active behaviourist approach to improving on task behaviour in a Year 4 classroom proved successful. Focusing the intervention on using descriptive praise and praise more generally in the classroom, whilst lowering levels of criticism, improved frequency of on task behaviour.

Critical factors in facilitating this success relate to notions of 'ownership', 'problem formulation' and particularly the data collection methods that were used. The sharing of live data with the CT was of central importance, as was the collaborative development of evidence-based strategies that were amenable to the presenting research context. Descriptive praise focusing on strategy, effort and pro-social behaviours was the key mechanism in that respect.

Experiences as a Trainee Educational Psychologist have taught me that ownership is vital if school change is to be maintained. Fullan (2006) and similarly Reynolds et al. (2006) promote this notion in their substantive work in relation to whole school change. Involving the CT in developing the intervention proved the catalyst for change in this classroom, and mobilising resources that would be involved in delivering the intervention at the 'chalk face' seemed an obvious starting point in terms of consultation. Phase 1 of Woolfson's (2003) problem analysis framework (Woolfson et al., 2003) proved useful in terms of focusing the work during the early stages of consultation in that regard.

In problem formulation and data collection, unstructured and structured approaches to observation were used. Both these methods can be problematic. Whilst unstructured approaches allow for a rich assessment of context, the validity of unstructured data is vulnerable in terms of the researcher's own identity and situated-ness. In turn, this has implications for reliability. What is attended to by one researcher, may not be done so by

another. By contrast, structured approaches to observation have their own dilemmas to contend. Whilst structure equates to manageability, which in itself minimises the potential for reliability errors, reductionist observation schedules can seriously compromise validity (Robson, 2000).

Yet both unstructured and structured approaches to observation have their value in terms of carrying out real world research, and particularly when used in conjunction with one another. In this instance, field notes were used in a progressive capacity and subsequently this allowed for a more finite and concrete focus to develop in terms of dealing with the practicalities of realising the overall research aims within a busy and hectic school environment.

Though at times I felt that the structured formats were clumsy and in parts, overcomplicated, my overall impression was that they were well focused in terms of facilitating the development of concrete and workable strategies for the CT to use in relation to promoting increased levels of on-task behaviour. The formats did illustrate frequencies in classroom behaviour and this facilitated an air of manageability and purpose to the research process.

Recognition of the classroom context was vital in terms of developing a sustainable and organic pro-active product. Here, working within the CT's 'zones of proximal development' (Vygotsky, 1978), in terms of her skill, confidence and elevated stress levels, proved an important factor. Once confidence levels were up, the CT was able to generalise the 'descriptive praise approach', which initially targeted specific on task behaviours, to other areas of behavioural improvement.

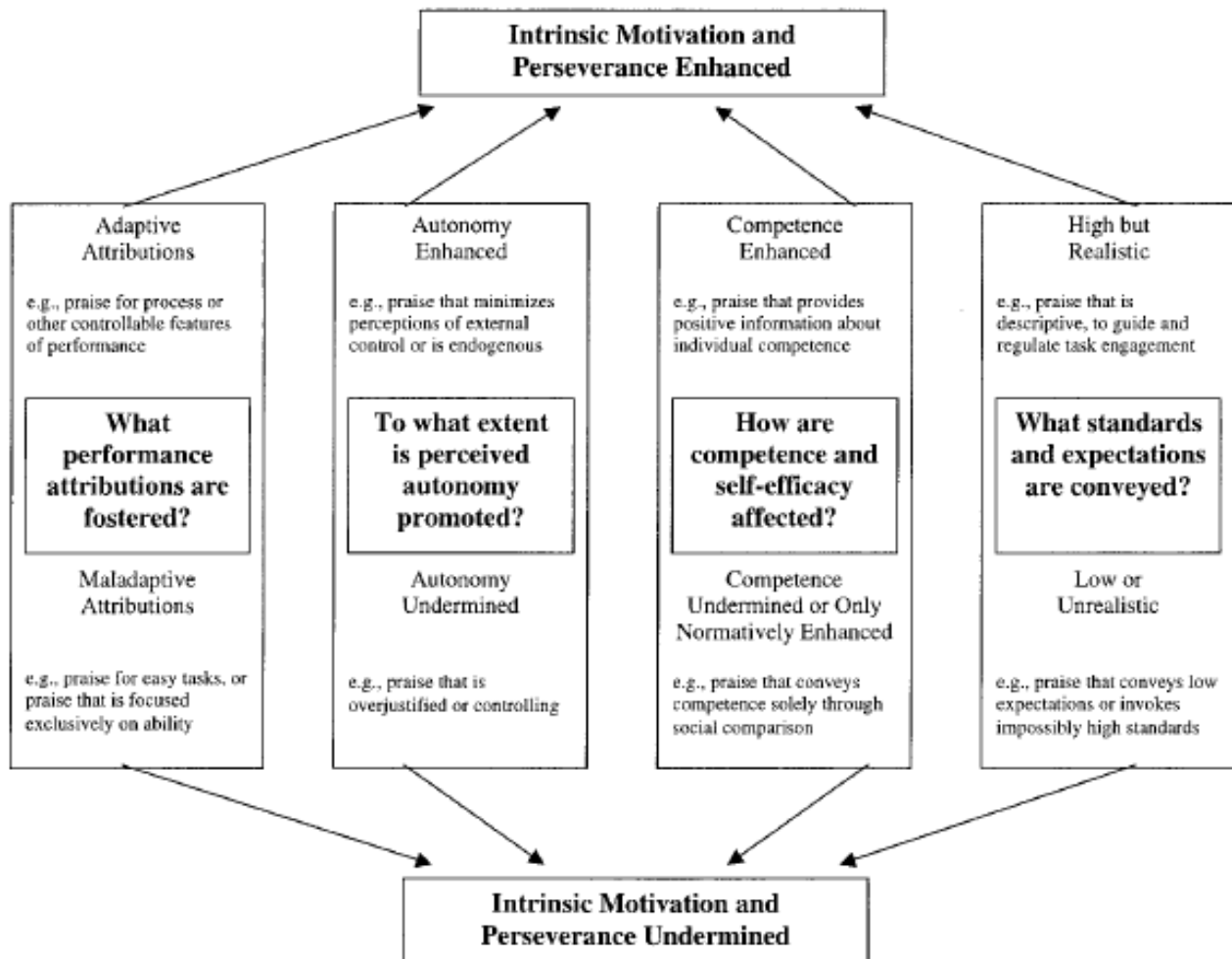
Whilst drawing from the behaviourist paradigm allowed for increased reliability, whether or not the conclusions derived are wholly valid is contentious. A major criticism of the behaviourist approach is that it oversimplifies the complexities of human functioning (Banister et al. 1994). Some might argue that crude behavioural recordings, such as ratings of 'on task' behaviour, do not provide an account of internal states, and subsequently the levels of learning occurring within the classroom: the point being made here relates to, and is based on the premise that on-task behaviour and learning should be synonymous (as most educationalists would surmise). It was posited that praise directed towards process rather than outcome would facilitate intrinsic motivation, which would promote greater engagement with the learning process. Whilst to infer internal states is to go beyond the observation data, the CT did report in consultation that children's engagement with their work had improved, and with a strong and robust evidence base associating enhanced motivation with process oriented praise (e.g. Black and Williams, 1999), it might tentatively be assumed that motivation was improved within this classroom, not just 'behaviour'.

Finally, given that this work was developed collaboratively with the Year 4 CT, and that a Vygotskyian (1978) 'ZPD' psychological framework' proved useful in terms of the presenting context in that respect, I took the opportunity to capitalise on discussions that surfaced in consultation in relation to motivation and praise, in an attempt to promote further, ongoing improvements within the Year 4 classroom. To achieve this I presented the CT with a model outlining some of the principles in terms of praise that were covered in this study. The

model, taken from work by Henderlong and Lepper (2002), incorporates aspects of praise, as they relate to improving intrinsic motivation in classrooms. As noted, motivational properties were not explicitly measured in this study, though it was assumed that intrinsic motivation had been increased within the Year 4 classroom. Improving levels of motivation is a central aspect of the governments 'Assessment for Learning' agenda (AFL), and this links directly to 'behaviour management' in schools. The primary and secondary national strategies recommend that AFL is embedded within all aspects of teaching and learning in schools (DfES, 2003).

Figure 4 overleaf depicts the model that was given to the CT as an 'easy reference tool' that might server to remind / further improve behaviour management / teaching within the classroom.

Figure 4: Henderlong and Lepper's (2002) model linking praise and other conceptual variables to the facilitation of levels of intrinsic motivation



References

Apter, B., Arnold, C., and Swinson, J. (2008) MObs research update, debate, CP, Division of Educational and Child Psychology: *The British Psychological Society*, 127 (22).

Assor, A., Kaplan, H., and Roth, G. (2002) Choice is good, but relevance is excellent: autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork, *British Journal of Educational Psychology* 72, 261–278.

Ayers, H., Clarke., D & Murray, A. (2000) *Perspectives on Behaviour: a practical guide for effective interventions for teachers (2nd edition)*. London: David Fulton.

Bannister, P., Burman, E., Parker, I., Taylor., M. & Tindall, C. (1994) *Qualitative Methods in Psychology*. Buckingham: Open University Press.

Black, P., and William, D. (1999) *Assessment for Learning: Beyond the Black Box*. Maidenhead: Open University Press.

Black, P., and William, D. (1998) *Inside the Black Box: Raising Standards through Classroom Assessment*. London: School of Education, King's College.

Blumenfeld, P. C., Hamiltin, V. L., Bossert, S. T., Wessels, K., and Meece, J. (1983) Teacher talk and student thought: socialisation in the student role. In: J. M. Levine and M. C. Wang (Eds.), *Teacher and Student perceptions: Implications for Student Learning*. Hillsdale NJ: Lawrence Erlbaum.

British Psychological Society. (2006). *Code of Conduct, Ethical Principles and Guidelines*. London: British Psychological Society.

Brophy, J. (1981) Teacher praise: a functional analysis, Review of *Educational Research*, 51(5), 5-31.

Burden, R. L. (1999) Children's self-perceptions. In: N Frederickson and R. J. Cameron (Eds.), *Psychology Portfolio*. Windsor: NFER – Nelson.

Cameron, J., & Pierce, D. (1994) Reinforcement, reward, and intrinsic motivation: A meta-analysis. *Review of Educational Research*, 64(3), 363-423.

Chalk, K., and Bizo, L. (2004) Specific praise improves on-task behaviour and numeracy enjoyment. A study of Year 4 pupil's engaged in numeracy hour, *Educational Psychology in Practice*, 20(4), 335-354.

Cohen, L., Manion, L. and Morrison, K. (2000) *Research Methods in Education*. London: RoulledgeFalmer.

Cohen, L., Manion, L. and Morrison, K. (2007) *Research Methods in Education*. London: RoutledgeFalmer.

Department for Educational and Skills DfES (2003) *Excellence and enjoyment: A strategy for primary schools*.

Dyer, C. (1995) *Beginning Research in Psychology*. Oxford: Blackwell.

Ferguson, E., and Houghton, S. (1992) The effects of contingent teacher praise, as specified by Canter's Assertive Discipline programme, on children's on task behaviour, *Educational Studies*, 18(1), 83-93.

Fullan, M. (1999) *Change Forces: The Sequel*. London: Falmer Press

Fullan, M. (2000) The Three stories of education reform. Online article, *Phi Delta Kappan*, 81(8) 1-6. at: <http://www.pdkintl.org/kappan/kful0004.htm>

Gadamer, H. G. (1975) Truth and Method. In Scott, D., & Usher, R. (1999) *Researching Education*. London: Cassell.

Gingerich, W. J., and Eisengart, S. (2000) Solution-focused brief therapy: a review of the outcomes research, *Family Process*, 39(4): 477-498.

Grolnick W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, 81, 143–154.

Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). The inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology*, 83, 508–517.

Harrop, A., and Swinson, J. (2000) Natural rates of approval and disapproval in British infant, junior and secondary classrooms, *British Journal of Educational Psychology*, 473-483.

Hayes, B., Hindle, S., & Whithington, P. (2007) Strategies for developing positive behaviour management. Teacher behaviour outcomes and attitudes to the change process. *Educational Psychology in Practice*, 22(2) 161-175.

Henderlong, J., and Lepper, M. R. (2002) The effects of praise on children's intrinsic motivation: a review and synthesis, *Psychological Bulletin*, 128(5), 774-795.

Hopkins, D. (2002) *A Teacher's Guide to Classroom Research (third edition)*. Maidenhead: Open University press.

Irwin, D. M., & Bushnell, M.M. (1980) *Observational Strategies for Child Study*. London: Holt, Rinehart and Wilson.

Kamins, M. L., and Dweck, C. S. (1999) Person versus process praise and criticism: implications for contingent self worth and coping, *Developmental Psychology*, 70(4), 835-847.

Le Compte, M. & Goetz, J. (1982) Problems of reliability and validity in ethnographic research. *Review of Educational Research*, 52, 31-60.

Madsen, C. H., Becker, W. C., and Thomas, D. R. (1968) Rules, praise and ignoring: elements of elementary classroom control, *Journal of Applied Behaviour Analysis*, 1, 139-150.

McNamara, E. (1992) Motivational Interviewing: the gateway to pupil self management, *Pastoral Care*, September 1992.

Merrett, F., & Wheldall, K. (1986) *Manual for OPTIC: a Behaviour Observation Schedule for use in Schools*. Birmingham: Positive Products

Miller, A. (2003) *Teachers, Parents and Classroom Behaviour. A Psychosocial Approach*. Maidenhead: Open University Press.

Miller, A. Ferguson, E., & Moore, E. (2002) Parents' and pupils' causal attributions for difficult classroom behaviour. *British Journal of Educational Psychology*, 72(1) 27-40.

Mitchel, R. G. (1993) *Secrecy in Fieldwork*. London: Sage.

Mueller, C. M., and Dweck, C. S. (1998) Praise for the intelligent can undermine children's motivation and performance, *Journal of Personality and Social Psychology*, 75, 33-52.

Nagel, T (1986) *The View From Nowhere*. Oxford: University Press.

Neeson, A (2000) *Report on teachers' Perceptions of Formative Assessment*. QCA. LIB4\44526\1.

Powell, J. Martindale, A., & Culp, S. (1975) An evaluation of time sampling measures of behaviour, *Journal of Applied Behavioural Analysis*, 8, 463-9.

Pugach, M. C. (1990, April). Self-study: The Genesis of Reflection in Novice Teachers? Paper presented at the annual meeting of the American Educational Research Association, Boston.

Online at:

<http://www.jstor.org.ezproxye.bham.ac.uk/stable/info/1001931?seq=1&type=ref>

Reynolds, D., Stringfield, S., and Schaffer, E. (2006) The high-reliability schools project: Some preliminary results and analyses. In J. Chrispeels and A. Harris (Eds.), *School Improvement: International Perspectives*. London: Routledge.

Rhodes, J. (1993) The use of solution focused brief therapy in schools, *Educational Psychology in Practice*, 9(1), 27-34.

Robson, C. (2002) *Real World Research*. Oxford: Blackwell

Schein, E. H. (1987) *Process Consultation: Volume 2*. Reading, MA: Addison-Wesley.

Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1): 5–14.

Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2003) *Research Methods in Psychology* (sixth edition). New York: McGraw Hill.

SIG (2001) *Practice Guidance on Consent for Clinical Psychologists Working with Children and Young People*. SIG Position Paper.

Skinner, B., F. (1993) *About Behaviourism*. London: Penguin.

Slee, P. (1987) *Child Observation Skills*. London: Croom Helm Ltd.

Swinson, J., and Harrop, A. (2005) An examination of the effect of a short course aimed at enabling teachers in infant, junior and secondary schools to alter the verbal feedback given to their pupils, *Educational Studies*, 32(2), 115-129.

Stainton Rogers, W. (1996) Critical approaches to health psychology. *Journal of Health Psychology*, 1(1), 65-77.

Thompson, T. (1997) Do we need to train teachers how to administer praise? Self worth theory says we do, *Learning and Instruction*, 7, 49-63.

Usher, R. (1996) A critique of the neglected epistemological assumptions of educational research, In: Scott, D., & Usher, R (1996) *Understanding Educational Research*. London: Routledge.

Vygotsky, L.S. (1978). *Mind in society*. Cambridge, MA: MIT Press.

Weiner, B. (1985) An attribution theory of achievement motivation and emotion, *Psychological Review*, 92, 548-573.

Weiss, S. (2002) How teachers' autobiographies influence their responses to children's behaviours: the psychodynamic concept of transference in the classroom. *Emotional and Behavioural Difficulties*, 7(2). 109-127.

Wheldall, K., Merrit, F., and Bork, M. (1985) The behavioural approach to teaching package (Batpack): and experimental evaluation, *British Journal of Educational Psychology*, 55, 65-75.

Wheldall, K., Houghton, S., & Merrett, F. (1989) Natural rates of teacher approval and disapproval in British secondary school classrooms. *British Journal of Educational Psychology*, 59, 38-48.

Wheldall, K., & Merrett, F. (1985) Reducing troublesome classroom behaviour in secondary school. *Maladjustment Therapy in Education*, 3, 37-46.

Wheldall, K., Merrett, F., & Borg, M. (1985) The behavioural approach to teaching package: an experimental evaluation, *British Journal of Educational Psychology*, 55, 65-75.

White, M. A. (1975) Natural rates of teacher approval and disapproval in the classroom, *Journal of Applied Behaviour Analysis*, 8, 367-372.

Woolfson, L., Whaling, R., Stewart, A., & Monsen, J. (2003) An Integrated Framework to Guide Educational Psychologist Practice, *Educational Psychology in Practice*, 19(4) 283-304.

Wragg, E. C. (1994) *An Introduction to Classroom Observation*. London: Routledge.

UNIVERSITY OF
BIRMINGHAM

University of Birmingham Research Archive

e-theses repository

This unpublished thesis/dissertation is copyright of the author and/or third parties. The intellectual property rights of the author or third parties in respect of this work are as defined by The Copyright Designs and Patents Act 1988 or as modified by any successor legislation.

Any use made of information contained in this thesis/dissertation must be in accordance with that legislation and must be properly acknowledged. Further distribution or reproduction in any format is prohibited without the permission of the copyright holder.